



ONTARIO
COLLEGE OF PHARMACY
44 BAYVIEW ST. E.
TORONTO.

Donated by W. A. B. Petrie
Colborne, Ont
Sept. 22, 1939.

ONTARIO
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THE
PHARMACEUTICAL ER,

(SEMI-MONTHLY)

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44 GERRARD ST. E.
TORONTO.

EDITED BY
CHARLES W. PARSONS, Ph. C.

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CHARLES RICE.

A conspicuous figure in American pharmacy is Dr. Chas. Rice, of New York. Born in Munich in 1841, of Austrian parents, he received a very thorough education in Vienna, Munich and Passau, acquiring a thorough mastery of several Oriental languages, of the classics and of modern tongues. He enjoyed the friendship and aid of many of Europe's distinguished scholars, the result of their teachings being that he is a most thorough and accomplished linguist. He turned toward a professional and technical career in his early manhood, and, acting upon the advice of friends and relatives, came to America in 1862. The Civil War then being in active progress, he entered the navy as surgeon's steward, or, as it would be called now, apothecary,

and served in this capacity until late in 1865, during which time he was able to visit the four quarters of the globe. After his discharge from service, he entered the Department of Public Charities and Corrections of New York City, with which he has ever since been connected, now holding the position of chemist to that department and superintendent of the General Drug Department. He became a member of the New York College of Pharmacy in 1867, has served as one of its trustees since 1870, and, as an officer in one or another capacity, he has been one of the most faithful friends of the institution. He was made chairman of the Pharmacopoeia Committee of the A. P. A. in 1877, and has served as chairman of the Com-

mittee on Revision of the U. S. P. since the sixth decennial revision. He is the possessor of the honorary degree of Doctor of Philosophy from the University of New York, is an honorary fellow of the New York Academy of Medicine, and has preserved a close connection with several Oriental societies, in which he has always taken great interest. He has done valuable work for the Indian government, and is recognized as an authority on questions of philology and etymology. He is a prolific writer, and has had great experience in editorial and revisory work. The U. S. P. shows the quality of his service, and is alone a monument to his attainments.

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advertising page 30

EDITORIAL.

How do you like my new dress?

UNIFORM PRICES ON PHARMACEUTICALS.

In connection with the resolution adopted at the last meeting of the N. W. D. A., relating to this matter, the leading pharmaceutical manufacturing houses were asked for an expression of their opinion upon the advisability of the step proposed and placed in charge of the committee of which Mr. C. F. Weller is chairman, for action and report. A majority of these houses prefer not to speak for publication, but we give, in our correspondence department, the views of a few firms. The suggestions and opinions there presented bring out phases of the subject which are important for careful consideration by the committee.

INTERNAL TAX ON PROPRIETARY MEDICINES.

The ways and means committee have been considering the advisability of imposing a stamp tax upon proprietary medicines for revenue purposes. We are informed that a majority of this committee are in favor of such tax, and that a measure to this effect will probably be reported to the House for action. The members of the National Wholesale Druggists' Association and of the Association of Manufacturers and Dealers in Proprietary Medicines are up in arms against the proposition. The chairman of the committees on legislation of these bodies are distributing circulars among their members, requesting them to at once enter emphatic protest against the establishing of this tax. These circulars are reprinted in full elsewhere.

SPECIFIC DUTIES ON DRUGS.

The lot of the tariff adjuster is not a happy one just at present. The changes contemplated by the Wilson bill are bringing in an avalanche of commendations, protests and petitions. No class of business men but find something to object to, though in the main they may consider the proposed measure a good one. Perhaps as little dissatisfaction as exists in any branch is felt by the drug trade, who, however, want some changes made which they feel are reasonable and just. Importers of drugs are petitioning congress to make the duties on chemicals and drugs for medicinal use specific instead of ad valorem, believing that specific duties favor the importation of the better qualities, while ad valorem duties promote traffic in inferior grades. It is claimed that honesty is made difficult and a premium placed upon dishonesty when ad valorem rates are in force, for the honestly rated goods must compete with those undervalued as inferior, but which later appear under the price and name of the good. Undoubt-

edly there are some features of the bill which can be altered for the better, and the best we can wish for its framers is that they may be able to please and serve the majority, instead of the minority, of the many and diversified interests which are concerned.

HELPING THE CLERK.

How many druggists guide and oversee the studies of their clerks with a view to their best professional training and advancement? The set of questions (elsewhere in this number) devised by one employer to test the knowledge of his clerks, shows what great good may be accomplished by intelligent supervision of the student's labors, and constitutes a most worthy example to others. The clerk has a right to this character of aid from his employer, and in most instances where sought, it is most willingly accorded. Whatever the character and attainments of the employer, he is flattered by such an application, and stimulated to its best fulfillment. He appreciates this evidence of earnestness and seriousness in the clerk, and is inclined to place greater confidence in him. The employer stands naturally in the position of preceptor, and at least one board of pharmacy recognizes this relation in requiring from the employer an affidavit of the character of the experience gained by the applicant for examination. The influence of such an example as this influence cannot but be for good. Undoubtedly there are many others who take as great interest in their clerks' welfare, and an exchange of plans and methods through the columns of the pharmaceutical journals would be productive of a widening of this influence and an extension of its good effects.

"PALMETTO" TRADE MARK DECISION.

The recent controversy between the State of South Carolina and the United States patent office over the registration of a trade-mark, "Palmetto," which the state sought to use in connection with its lately assumed control of the liquor traffic, has at last been decided in favor of the state, and the Supreme Court of the District of Columbia, in a lengthy opinion, has given an authoritative statement of the real scope of the trade-mark law, which appears in full in the official gazette of the patent office for November 21, 1893. The application was at first denied by the examiner of trade-marks, on the ground that the State of South Carolina was not a corporation as contemplated in the act of March 3, 1881. The case was then appealed to the Commissioner of Patents, who also refused legislation, basing his denial upon that clause of the law which says: "No alleged trade-mark shall be registered unless it appears to be lawfully used as such by the applicant in foreign commerce," and upon the dispensary act itself, which does not authorize trade in liquors outside the limits of the state. The court held that it is the duty of the Commissioner of Patents simply to decide whether an applicant has a right to use a trade-mark as such, and should determine, not the right to use in trade with foreign countries, but simply the fact that it has been used in such trade. The decision of the court states that the registration of a trade-mark confers upon the registrant no new right of property in the trade-mark itself, but simply cer-

titles to a presumption of ownership of the trade-mark in connection with trade in a certain class of goods, and in case of suit for infringement operates to change the usual procedure by placing the burden of proof upon the defendant, and it is only in such cases that all the rights of ownership can come up for judicial decision.

AFFIDAVITS OF EXPERIENCE.

The recently adopted ruling of the Michigan Board of Pharmacy that hereafter all applicants for examination as registered pharmacists must have had at least three years' actual experience compounding drugs in a retail drug store under the supervision of a registered pharmacist, and all applicants for examination as registered assistant pharmacists must have had at least two years of such actual experience, is a matter of greater significance importance than it might seem at first thought. Affidavits from employer or teacher certifying to the length of this actual experience are to be required from applicants for examination. Doubtless there will develop some opposition to these regulations, but a little consideration will show that they are calculated to correct certain abuses which have become prominent in the past few years. The dishonest applicant has lied about the extent of his pharmaceutical service, and by cramming from quiz compends, "aids" and the like, has succeeded in passing, barely, the portals of a profession to which he can never be a credit. But the affidavit can be proven, the employer is not going to carelessly sign such a document nor swear to a falsehood, and the document becomes in some degree a guaranty of the quality of the experience, the further and full extent of which quality the board proposes to ascertain through its examination. Michigan, at least, does not intend to be the dumping ground for incompetents, and the Board of Pharmacy, knowing what constitutes a good pharmacist, is trying to insure that all whom it registers are truly qualified.

MINISTERS ON MEDICINE.

The religious press has always borne the reproach (a just one, too) of fostering quackery, often of the most arrant and indecent nature, and the opening of its columns to lying advertisements and fulsome recommendations from clergymen of quack nostrums have disgusted people who know the true nature of the frauds. Every fake patent medicine has relied largely upon the support won, very easily, from clerical gentlemen, for there is a very large proportion of humanity which believes what the minister says. It is therefore very surprising, though most encouraging, to find one religious paper which is beginning to lose faith in quackery. Here is what it says:

"No person should trifle with health, nor use uncertain remedies in sickness when certain ones are within reach. We have more faith in genuine medical science than we once had, and less faith in empiricism and quackery. The best counselor is a reliable family physician of progressive studies and Christian principles. Avoid the traveling quacks and most of the loudly heralded cure-alls which in the end do more harm than good. There are many proprietary remedies of established value, which physicians themselves prescribe, but it is

safer, as a rule, to take any kind of medicine only on advice of a physician. He who gulps down patent medicines at his own instance undertakes to judge his own symptoms and prescribe their remedy when he knows nothing about either. Ofttimes a bit of surgery will do more good than a thousand nostrums. No doubt there are villains in the medical profession who abuse their trust, and impose upon their patients, but as a rule, with good judgment in choosing a physician and in following his directions, we are far safer in the hands of those who make diseases and their treatment the study of their lives than we are in the hands of ignorant and unprincipled charlatans, who are interested only in getting our money."

A little faint hearted yet, but it will become more courageous as it finds it has lost no real friends, but has rather gained in authority and reputation for sincerity and truth.

THE CUTTER.

The list of advertised cutters on another page shows how wide-spread has become the practical practice of cutting on patent medicines. It has indubitably worked much injury to the drug trade, and it is difficult to see where anyone has been benefited. If even the cutter made anything out of it, he might argue its advantages. But he doesn't profit from it, at least directly, and any indirect benefit cannot be positively asserted. In all cases cutting is adopted, not to realize a profit on the goods cut, but on other lines, with the prices of which the purchasing public is not familiar. The cutter uses leading patents as baits to advertise his wares, and he would not be satisfied if his sales were on the cut goods alone. Nor could he live on such a business. He depends on an exorbitant profit on other sales, or he may be satisfied with a small percentage if the aggregate be sufficient. Thus he does not hesitate to steal a portion of the legitimate business of the druggist can carry it on illegitimately, that his other lines may be advanced. He tries to argue the justice of his proceedings, but his arguments are superficial and specious. He adopts cut prices in the belief that increased trade will result, reasoning that it is better to sell ten articles at five cents profit each than one article at fifty cents advance. If he applied this rule thoroughly and consistently, there could be no logical objection; it would be business; but he doesn't do this. He sells a few leaders at cost or less, a few lines on very small margin, and raises the remainder of his wares, trusting to luck to see him through, or else keeps prices low and lowers quality commensurately to afford the required profit.

Then another aspect of the case must not be overlooked. How is the cutter's business and financial standing affected? As a rule the cutting druggist is regarded with suspicion, for there is abundant warrant for the belief that cutting is his last resort. His credit becomes impaired, his bills must be paid promptly or he can purchase only for cash, and his stock depreciates greatly in value in the estimation of those who know. The reputation for cheap patent medicines which he seeks soon enlarges into a reputation for cheap goods all the way through, and to sell them at such low prices he must and does depreciate their quality.



"THE WOLF IN SHEEP'S CLOTHING."

The accusations which Mr. F. K. Stearns, president of F. Stearns & Co., makes against the house of Parke, Davis & Co., are of too serious a character to be ignored, and the more so when Mr. Stearns, as he has done, makes the charges over his own signature, thereby showing that he desires no relief from the full responsibility of his statements.

Of one thing we are sure. Parke, Davis & Co. cannot satisfy any intelligent physician or druggist by avoiding the issue with the statement, "that attacks from odious and petty rivals must always be the lot of any house which stands foremost in reputation and magnitude." Much less will they command the respect of even their friends by unearthing that old matter of Mr. Stearns, Senior, with the American Pharmaceutical Association. They certainly must know that Mr. Stearns, Senior, retired several years since from the active management of the company which bears his name, and that he has nothing to do with this controversy. That unfortunate affair of his is a thing of the long past as it occurred a quarter of a century ago. Mr. Stearns has repeatedly acknowledged his mistake in private and in public; he paid dearly for his error by the loss of professional standing and friends, and the A. P. A. lost one of its most able workers. Some of the very men who voted against him have since tried to gain his consent to a movement for his reinstatement, and all parties admit that, if calmer counsel could have prevailed at the time of his expulsion, the desired results would have been accomplished without resorting to such severe measures. It was the mistake of a brilliant man's career. He has acknowledged his error and paid the penalty, and no one but a dastardly coward would bring it up against him at this late day, in his declining years.

No set of politicians ever framed a platform of their alleged party principles with more deliberation than did Parke, Davis & Co. construct their so-called "Scientific and Business Platform." We reprint this platform here, that the reader may see for himself what strong claims they make for virtue and integrity in the conduct of their business:

SCIENTIFIC AND BUSINESS PLATFORM.

We respectfully invite the attention of physicians and pharmacists to a brief statement of the ethical, scientific and business principles upon which we strive to base our operations as manufacturing chemists. We shall be pleased to communicate with any member of either pro-

cession who may desire further literature in amplification of any or all of these principles, and cordially invite such correspondence.

We hold that the manufacturing pharmacist who desires the patronage and values the respect of the physician, should study and conform to those principles of medical ethics which affect the production and marketing of medicinal preparations, therefore:

- A. We strive to maintain the highest standard of quality.
- B. We do not manufacture or market any preparation protected by copyright, patent or trade-mark, or by concealed or misrepresented formula.
- C. We do not so label or advertise our products as to encourage or admit of their use by the public without the advice of the physician.
- D. To the end that the product and the art of its manufacture may never become lost to science, every medicinal preparation should have a proper name, open to general scientific usage; and its formula should be published in scientific literature in such a manner that any competent pharmacist may readily prepare it.
- E. We hold, further, that the manufacturing chemist should lend his superior resources to the advancement of both medical and pharmaceutical science; that he ought not to act altogether from a selfishly pecuniary motive, but should be guided in view the general well-being of humanity, and, as tending to this end, the continued progress of medicine and pharmacy.

Based on our claim to the consideration of the physician and pharmacist upon the foregoing statements, an investigation of the truth of which we earnestly solicit, we remain,

Yours very truly,
PARKE, DAVIS & COMPANY."

This "platform" is certainly an ideal standard, but to an unbeliever it affords much amusement. While one cannot but admire the brain which conceived it, you wonder how he dared to be so bold. They have braced their platform by the liberal use of "circular supports," and some of these circulars are truly rich. Let us give a few of the more rare specimens:

This is worthy of a statesman—

"Nations, political parties and all organizations, as well as individuals, have their policies or policy, good or bad, by which their acts are governed, and commercial houses are no exception to the rule."

They pledge themselves for all future time—

"We have written and published over our signature in the various medical journals of the United States, a platform setting forth our relations individually to the medical profession, and pledging ourselves to maintain for all future time the position which we have assumed."

They prefer to be honorable.

"We prefer, however, to conduct our business on what we believe to be an honorable basis, with due reference to our relations to the Medical Profession and to our connection with the Profession of Pharmacy."

They boldly assert no trade-marks.

"As a part of the policy, we have ourselves never taken out any copyright, trade-mark or patent, or made use of any secret formula with relation to any medicinal preparation or combination issued by us."

They never protect or monopolize.

"With this policy to guide us, we have never protected or monopolized the manufacture of any medicine or pharmaceutical compound. We publish the formulae of all preparations we make, and every article on our list is open to the freest competition."

How about their own journals?

"Proprietary or trade-mark pharmaceuticals are advertised extensively in medical journals. Editors of journals containing such advertisements defend this quackery, fearing to lose their advertising patronage if they defend the profession against it."

The wolf in sheep's clothing.

The proprietary pharmaceutical specialty is a "Patent" medicine in disguise, and physicians who are humbugged by using such advertisements drummers who visit physicians' offices all over the land for that purpose, prescribe themselves out of practice and abuse their clientage to the charlatan and quack. This class of proprietary medicines may be regarded as the wolf in sheep's clothing; and the medical profession should be warned that they are admitting a very dangerous animal into the fold by prescribing them.

The wolf in his own clothing.

"Preparations of this kind may be illustrated by such compounds as Ayer's Cherry Pectoral, Hembold's Buchu, Warner's Safe Cure, etc. This class of proprietary medicines may be classed as the wolf in his own clothing, which the physician needs no caution to avoid."

Beware of the dulcet song of the drummer.

"Trade-mark pharmaceuticals are wolves in sheep's clothing. They are presented to us as legitimate pharmaceutical preparations, and we are requested to praise them. We owe to the doctor who listens to the dulcet song of the drummer." Their principles are based on truth and right.

"When we began our crusade against the patent and proprietary medicine interests, and for scientific medicine and pharmacy, every effort was made to misrepresent our motives and ridicule our policy. The principles for which we contended were, however, based on truth and right, and that they have prevailed is evidenced by their wide recognition to-day by the best element of the medical profession."

Their substitution platform.

"There exists for every proprietary medicine which has been proved to be of value, a non-proprietary counterpart, or scientific substitute, essentially the same in convenience of administration, palatability and medicinal efficacy. Can any rational physician hesitate for a moment in deciding which it is his interest to prescribe, the proprietary, or the non-proprietary preparation?"

They modestly offer to supply the goods.

"The formulae of any of these preparations will be furnished by us on application. Our pharmacies can fill and dispense these recipes, or we will supply the finished preparations in convenient form for dispensing."

But they are not in the business for revenue.

"It has been stated that we have personal reasons for waging this war. We answer frankly that we have. Our reason is not, however, as has been attributed to us, viz a financial one, but it is that which actuates every high-minded physician in adhering to his duties conscientiously under the code of ethics, to which he has subscribed and which is in strict accordance with self-respect and a scientific object."

The substitute is 25 per cent cheaper.

"What is claimed for Hematic Hypophosphites. It is claimed that this preparation is a faithful reproduction of Fellow Hypophosphites in all essential particulars, accompanied with a published formula based on a careful analysis of Fellow Hypophosphites. That it is, however, non-proprietary, and is a scientific substitute for the nostrum mentioned. That Hematic Hypophosphites is sold at about 25 per cent less than Fellow's Hypophosphites."

Mc and Squibb (from Instruction to Agents).

"The agent is to approach the doctor, wearing his most persuasive smile, and say: 'Doctor, I take it for granted you know all about Parke, Davis & Co., by whose request I call on you. They are the largest manufacturers of medicines in the world, and I have a favor to ask. Squibb are the only ones who protect the interests of physicians by having nothing whatever to do with proprietary or patent medicines, which now take away so much practice from the physicians by their direct sale to the public.'"

Some disinterested advice to physicians.

"The laws of ethics and self-interest alike urge the physician to give his patronage to that manufacturer who confines his work to unproprietary pharmaceuticals, and we believe that no physician who thoroughly examines the question of protected pharmaceuticals can fail to declare himself as opposed to them."

How a physician can pay his obligations.

"I, as a physician, owe a duty to science, to my profession, and to the cause of suffering humanity. Taking the above facts into consideration, I feel sure that I can pay these obligations in no better way than by specifying 'P., D. & Co.' in my prescriptions."

How about Damiana Wafers?

"Now, we ask the medical profession which manufacturer is the more worthy of patronage. He who places before them leading medicines only, or he who manufactures nostrums? We ask the doctor which one it is his individual interest to patronize. And when he has determined this question for himself, we ask him simply to live up to his conviction on this point by specifying the medicine that manufacturer who is working for him, rather than that one who is working against him."

MR. STEARNS' ACCUSATIONS.

Now let us compare their code of ethics with some of the charges made by Mr. Stearns, who is a responsible party and presumably knows what he is talking about, or he would not dare to make such statements. They certainly cannot object to this, for they earnestly solicit an investigation of the truth of the statements made in their "platform."

Mr. Stearns says this house is one of the largest, if not the largest, manufacturers of patent medicines in this or any other country. Under the scientific classification of "Private Formula Department" they devote a large part of their laboratory space and help to making such goods as The Mormon Elder Damiana Wafers, Mother Siegel's Curative Syrup, Dr. Campbell's Arsenic Wafers, any number of the patent pills, orders for which are frequently taken for 1,000,000 or more; Shaker Extracts in 10-kg lots, and a well known Sarsaparilla in carload lots, etc., etc., etc.

Mr. Stearns also asserts that they have copyrighted or trade-marked some of their preparations, and he names Chlor-Anodyne; but says there are others of much more recent date and he challenges them to deny it.

He states that their claim that they do not put up "Non-Secrets" is absolutely false, and that he has plenty of their samples to prove his assertions.

He shows how, under the guise of another name, they reach the public with food products; how they sell their Maltale packed in barrels to grocers, and their Escencia de Calsaya and Escencia de Coca are to be found at the bars of hotels and clubs.

It is not a pleasant journalistic duty to pull down idols, even when in the shape of platforms. No pharmaceutical house in America was ever more liberally supported by the better element of physicians and pharmacists than this one. This support has been extended on the basis of their alleged principles as laid down in their platform, and, if they are not true to their professions,

IT CERTAINLY IS TIME THAT THE TRUTH BE KNOWN.

They have made it their special mission to herald their own virtues, and expose the weaknesses of their competitors. They have claimed to be free from all proprietary and patent medicine pollutions, while they have taken delight in pointing out such iniquitous customs in others. Hardly a prominent manufacturer has escaped their venom. Even Dr. Squibb was brought in for his share, doubtless because they were jealous of his well-earned reputation.

Why have this house departed from their principles as laid down in their platform?

To answer this question fully would call for an analysis of their history, their methods and management, for which we have not the time or space at this writing. Their so-called scientific policy was not the creation of the house itself. In truth, they thought it, or more strictly speaking, it was furnished to them by an employe, a physician who was fresh from the influence and teachings of his Alma Mater, and who undoubtedly believed in what he wrote. With the house it was a matter of "business policy"—this being a most frequent expression of theirs.

We cannot recall even one officer or general manager in the corporation of Parke, Davis & Co., during its life, who could lay claim to the advantages and teachings of a scientific or professional education, and we don't speak of this to belittle their business abilities, for they have shown these. But when a business house adopts the physicians' Code of Ethics as a "platform" for its business operations, it must have a general manager who holds very strong convictions regarding the truth of the principles involved, and not alone because it is good business policy, or sooner or later his business interests and instincts will get the better of his adopted professions. This business manager hired such professional men as Stewart, Lyons, Rusby, Mulheron and others, to construct his platform, and, so long as he followed their advice, the platform was kept in good repair. But they were only employes, gradually they disappeared, and their places were filled with men not so familiar with the structure, and who could not be expected to appreciate its full value. Other departments of the business were found more directly profitable than the "scientific department;" the manager was ambitious for a big business, the stockholders were fond of large dividends, and the inevitable result soon came.

The old platform, which had given this house a reputation which any manufacturing pharmacist might well be proud of, was neglected; it was not enlarged to accommodate the increasing demands of the business; its periodical coats of white wash were forgotten; the decaying planks were not renewed, and some of its best supports were gone. How soon will the frame work fall?

POISON BOTTLES.

The question of using a certain kind of container for all poisonous or dangerous drugs is one which is now receiving a great deal of attention in England as a consequence of Mrs. Tyndall's sad mistake, which resulted in the death of her husband. The agitation is already so strong that it is thought that the matter will early receive the attention of legislators, and laws be passed which will require some additional safeguard in the employment of dangerous remedies besides the usual poison or caution label. Pharmacists have long recognized the desirability of a distinctive container for such medicines, and many plans have been put forth to overcome this apparent defect in pharmaceutical practice. The fact that there are already many plans and schemes in existence renders a choice difficult, and also renders their employment without legal authority unsafe, as it is strictly essential in matters of this kind that there be a uniformity of practice, so that the same container will always convey the same idea as to caution in all parts of the country.

This same question of the means for the preservation of human life comes to the attention of all who are engaged in vocations of a hazardous nature. The records of the patent office are burdened with specifications for patent car cauplers and fire escapes. Yet the newspapers daily record casualties which the adoption of some uniform system might prevent. Inventive genius usually responds to demands which are made upon it, and the time seems propitious for a determined agitation which will lead to legal enactments requiring the adoption of uniform methods along certain lines for the preservation of life and health. One of the arguments advanced in connection with medical and pharmaceutical practice is that the labeling or placing of medicines in containers which convey an idea of their dangerous nature to the patient, has a very disturbing effect, and on this account such a practice should not be adopted; but when the record of fatal errors due to said omission is consulted, the force of such an argument is quite doubtful. The best preliminary measure which will lead to improvement in this matter, is the inauguration of a movement to educate the public to the idea that all medicines are dangerous, and that extreme caution should attend the administration of the simplest medication.

SAFEGUARDS AGAINST PRESCRIPTION ERRORS.

In connection with the matter of a uniform style of container for potent and dangerous medicines, referred to in another column, it is pertinent to glance at the precautions observed to insure the proper medicine. These precautions must be taken by the physician and the pharmacist. There is little new on this subject to be said, but so long as man is fallible, so long must admonition be reiterated. The doctor has but his sense of responsibility to impress upon him the necessity of care and thoroughness in writing his prescription. The pharmacist has his poison closet, electric devices, sharp-cornered bottle stoppers, caution labels, etc., to draw his attention to the fact that dispensing a prescription is responsible business, where a mistake made

is liable to be followed by serious results. But any of these mechanical jogs to attention may, and often do, fail. There should be more than this. There should be a mind not easily diverted to error, a conscientiousness that will insure accuracy and safety. But these attributes are not to be found in every man and, as none may reach perfection, it is necessary to adopt any and all precautions which promise the greatest degree of safety.

We all remember the Harris murder case in New York, where the defense endeavored to involve one of that city's honored and prominent druggists. This druggist, happily, was not only able to preserve but to add to his reputation for professional attainments and accuracy by demonstrating that in his store a mistake was out of the question; that his work could be relied upon. Knowing that man may err, but knowing, too, that two men are not apt to err in the same particular, he had perfected a system of prescription checking, the work of one man being checked by another. This method, it seems, would promise greatest immunity from error, and in some form or another it is in force in many drug stores. A modification recently described by one of our exchanges consists in the use of a label upon the bottle of compounded medicine, on the back of which label is the information that it was dispensed by..... and checked by....., date..... This label may be read through the back of the bottle, or it may be soaked off and examined. We do not see any particular valuable feature in this new application of the principle, except that it supplies a record. This record, however, can be kept in a more satisfactory and easily accessible shape than to place it on the back of a label which passes out of the pharmacist's hands. If it is a duplicate of the record on the pharmacist's prescription file, it is unobjectionable. But the rule to have the dispenser's work checked by another should be insisted upon in every store. Most pharmacists appreciate the gravity and responsibility of their calling, but there are some careless ones against whose possible errors no precaution should be omitted.

THE DETROIT PLAN.

According to the reports of a Boston jobber, whose communication we publish in our Trade Department, fully 70 per cent of the druggists whom this firm approached made no reply when asked if they favored the Detroit Plan.

The time has certainly come when the retail trade should express themselves on the subject. That so large a per cent of the druggists made no response whatever shows that a large number of them are entirely indifferent to any movement that affects their interests, but it is hardly right to condemn the whole trade because of the lethargy of a large number of its more insignificant members.

It is more significant that of those who did reply only 40 per cent. were in favor of the plan.

According to press reports, President Faxon, of the N. W. D. A., and ex-President Davis have recently been east on a tour of inspection, or missionary trip, trying to persuade manufacturers to come into the fold. We treat the matter at length in our Trade Department.

ARE YOU PREPARED?

Following is a set of questions compiled by L. Sollmon, Canton, O., to test the knowledge of some of his clerks who propose to undergo the examination of the State Board of Pharmacy.

A few comments upon this most commendable example are presented editorially.—Ed.)

1. How many official preparations contain phosphorus? Name them.
2. How do you test pepsin?
3. What is lead plaster chemically? Give the outline of its manufacture.
4. What is tincture belladonna made of? Give dose.
5. Name the material differences in strength between articles of the U. S. P. '89 and '90.
6. Name the specific gravities of six official articles.
7. Give an outline of the method used to ascertain the percentage of: (A) morphine, (B) quinine. In the crude drugs.
8. How would you make Acid Hydrocyanic Dilute? Give its strength and its dose.
9. What is the percentage of absolute acid used in most of the dilute acids of the U. S. P. '90? Name the exceptions.
10. (a) What fatty acids are official? and (b) in what official preparations do they enter?
11. How are oleoresins made? Mention some.
12. What vegetable acids are official?
13. What official preparations are obtained from (a) Pisces, (b) Insecta, (c) Mammalia?
14. How many kinds of alcohol are official? and how do they differ?
15. Name the official ammonium salts.
16. Name the official strontium salts and give their doses.
17. If you have 10 grams of pepsin (1:2000), how much saccharum lactis do you add to make saccharated pepsin U. S. P. '90?
18. What official preparations contain C. N. and what are their doses?
19. Of what official substances is the maximum dose (a.) 0.006 gm. (b.) 0.016 gm?
20. In what forms is Argenti Nitras official?
21. Give the solubilities of Acidum Carbolicum.
22. Give the percentage and dose of the poisonous liquors of the U. S. P. '90.
23. What cryptogamous plants or their products are official?
24. Give the percentage of Hg. in Massa Hydrargyri, Unguentum Hydrargyri, Hydrargyri cum Creta.
25. What hems are official?
26. How many glycerites are official, and what glycerine percentage do they contain?
27. What preparations of Juniperus are official?
28. What official preparations do we obtain directly and indirectly from the Coniferae?
29. Name as many opium preparations and their morphine percentage as you know.
30. What is Lactucarium and in what official preparations does it enter?
31. How and where are Elastica obtained?
32. What substances are tested gasometrically?
33. Give melting point of Petrolatum Molle, Petrolatum Spissum.
34. Spiritus Glonoini, give percentage, dose and action.

35. How do you make Sulphur Lotum, Sulphur Precipitatum?

36. Give the official names and doses of the following: Magendie's Solution, Godfrey's Cordial, Yellow Wash, Viallet's Mass, Volatile Liniment, Liver of Sulphur, James' Powder, Bay Itum, Phenyl Salicylate, Turlington's Balsam, Brown Mixture, Black Draught, Labarraque's Solution, Glauber Salt, Lugol's Solution, Solum Thiosulphate, Lac Sulphur, Artificial Oil of Wintergreen.

37. What are the two main divisions of the vegetable kingdom?

38. Describe by words or drawings the meaning of the following botanical terms: Petiole, pinnate, bract, alternate, truncate, cordate, sagittate, lanceolate, ovate, striate, nectem, corymb, umbel, calyx, corolla, sepals, receptacle, style, tuber, rhizome, corn, bulb, radicle, stipes, medullary rays, endoderm, testa, funiculus, mericarp, cotyledon, embryo, pericarp, placenta, hilum, putamen, florets, pappus, diocleous.

39. From what plants are the balsams obtained?

40. Mention as many as possible officinal plants belonging to the following families: Leguminosae, Ranunculaceae, Liliaceae, Rosaceae, Gramineae, Umbelliferae, Compositae, Rutaceae, Solanaceae, Rubiaceae, Euphorbiaceae, Orchideae, Scrophulariaceae, Cucurbitaceae, Labiatae.

41. What drupes are officinal?

42. How and for what test do you use starch?

43. How do you test for lead, copper, iron and zinc?

44. How do you test for sulphuric acid?

45. How do you test for hydrochloric acid?

46. How do you test for oxidisable matter?

47. How do you test for calcium?

48. What atomic weights do you know by heart?

49. Describe Bettendorf's test.

50. What is the meaning of indicator in volumetric testing? Give examples.

51. What is meant by boiling point.

52. If a bottle weighing tare, 9.3 gm. contains 3.5 c.c. of liquid and weighs in all 1.42 decagrammes, what is the specific gravity of the liquid?

53. How much N-100 KOH (55.99) solution does it take to neutralize 100 c.c. dilute hydrochloric acid (36.37) U. S. P. '90?

54. If you add chlorine water to a solution of potassium iodide, and then excess of solution of sodium hyposulphite, what physical and chemical changes take place?

55. Give the chemical symbols of 20 official substances.

BAGDAD PHARMACY.

A correspondent of the Pacific Medical Journal says: "The practice of medicine is in a degraded state, and patients are constantly bargaining with the physician for a cure, and refuse to pay for advice or for an examination. When a wealthy person is taken ill all the doctors and magicians in the city are sent for and their advice is followed or not, as it suits the fancy of the women neighbors. If a prescription is sent to the drug store it will probably be put up in an old, unwashed cod-liver-oil bottle and then an old rag and some paper is made to do service as cork.

CERTAIN DISTINCT ADVANCES IN THE ANALYTICAL CHEMISTRY OF RECENT YEARS.

By Albert R. Procott.

Of the important gains made by the present generation of chemists let us acknowledge.

(1) The resolute attempt to find out the composition of matter as a whole in any and all of its mixtures of whatever source.

Analytical workers have undertaken to resolve the complex mass and account for all its contents. It has been their ambition to identify and determine existing molecules of every sort within a given mixture, while synthetical workers have sought to reach the constitution of the molecules themselves. The task of complete analysis has been entered upon, that called "proximate" as well as that called "ultimate." There have been good investigations that have taken "extractive matter" and "emphyreumatic matter," and "bituminous matter," and other undetermined residues as subjects for the beginning of chemical work rather than the end of it. The task of the complete analysis of matter in its every possible portion is a task that has been recognized and entered upon as a necessity of chemical advancement.

I do not by any means infer that the determination of distinct compounds is the result of analytical chemistry alone, as but one of the divisions of the science. On the contrary, I would emphasize the dependence of the analyst upon the entire body of chemical learning. He is limited by this dependence even for the identification and estimation of distinct bodies without going into the make-up of molecules. Analysis is or ought to be a certain function of the whole body of chemistry, not a part of the body which could live if separated. An analyst cannot well be less than a whole chemist, and though his ends be single in direction, they are not indifferent to the powers common to all chemical insight.

The analytic method began to yield large returns in the last century. When Black made more exact qualitative examination of fixed air he began to uncover the chain of underlying truth laid hold of by Priestley, and fairly dislodged by Lavoisier and other contemporaries. In the first half of this century the enormous analytical detail instituted by Berzelius extended the very foundations of physical science. And in the present generation the analyses of biological chemists and industrial chemists of many and various purposes have been very influential factors in the support of great principles of chemical truth.

Again, the courage of analytical effort in recent years has been seen especially.

(2) In the elaboration of methods for the isolation of carbon compounds, both natural and artificial. "Proximate organic analysis" is not so greatly at a discount as it was twenty years ago. Research has been devoted to the estimation of organic compounds, unbroken and unaltered. It has been a common necessity to effect determinations truly "proximate," in the definition of this inadequate word. There have been pointed inquiries from the biologist often, from the metallurgist at times, from the theoretical chemist not seldom, what is the chemical

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character of this body as it exists just before its analysis? Since Dragendorff devised ways of plant analysis, and Hoppe-Seyler collected methods of physiological analysis, thousands of contributions have enriched the resources of the organic analyst, and thousands of workers are now in like endeavor. Chemical literature is thickly strewn with directions for analysis to the end of identification of the integral molecule, representing matter in its living state, if such a figure of speech may be used. This is, indeed, the special task of analytical research, although the terms of analysis are also given to operations that accompany synthetic work, to wit:

(3) In studies of the molecular structure of bodies produced by nature, bodies mineral, vegetable and animal, as well as those of artificial production. To classify analytical work strictly by definition, which, however, I have no desire to do, all the studies of molecular constitution come within the range of analytical inquiry. But even under customary classification of chemical labor, it will be observed that certain instruments of observation early used by analytical chemists have since been found most effective in studies of molecular structure, even for what is termed the configuration of the molecule. Especially, therefore,

(4) In the employment of physical methods of inspection, whereby molecular change is avoided, important advances have been made in the analyses of recent years.

First of all through the several responses of the molecule to light, under more exact observation, the clearest of identifications have been obtained. Optical methods have multiplied and become more exact. We are, however, only in the beginning of their adaptation to analysis. Studies of geometric isomerism have shown the analyst how rich in results the polarimeter may become. Next to this, probably, stands the refractometer in its value as a means of recognition in analysis. Then the use of the spectro-scope for studies of absorption by transparent bodies has already done admirable service to analysis, both organic and inorganic. New responses of matter to heat have been brought under observation. In qualitative determinations, as in the finding of the molecular mass, the freezing point and the effect on solidifying points of solvents are in question as well as the melting points and boiling points. The chemical world is alive with interest in the advances of the new physical chemistry. To these advances no one is and is to be more indebted than the analyst. Solubility itself, the great common factor of analytical operation, is under investigation, in which the analyst has the keenest interest. The feebleness of adhesion, too often overlooked, causing waste in quantitative separations, and putting limits upon the best of our results for analytical recovery, these, with the phenomena of capillarity, are well under investigation. The very checks of control analysis serve as data for studies in molecular physics.

It is not possible for me to group together in classes near all the ways of advance in recent analytical chemistry, and I will but specify once more how this advance appears.

(5) In the reciprocal benefits of scientific research and of technical skill. We see this in the work of experts, those in

EDUCATION OF INDUSTRIAL CHEMISTS. By Henry Pemberton, Jr.

Some years ago a chemical firm in one of our eastern cities was desirous of obtaining the services of a chemist, who should take charge of the factory. Accordingly, advertisements were inserted in the industrial journals for a man who should not only be familiar with the analytical work, but who could also assume the responsibility of overseeing the plant, checking the running of the various processes, and meeting the emergencies that are constantly arising in operations of this kind.

A large number of answers were received. Interviews were requested with those who, from their letters, appeared to be the most likely to suit. But as a result, it soon appeared that the securing of a competent man was by no means an easy matter. Some of the applicants, whose letters were most assuring, turned out to have been simply laboratory boys. Others, more prominent, were of foreign birth but unfamiliar with the language and customs of the country. Some were undesirable on account of their personal manner or character. But, by far the most general objection was that the knowledge and experience of these chemists were limited to the field of analytical chemistry, and to the work of the laboratory. They were entirely familiar with the handling of the beaker glasses and funnels, platinum crucibles, analytical balances, burettes and flasks. But in the matter of treating material in large quantities, and obtaining results in the factory, they came up, as it were, against a stone wall. Many of them, in fact, were literally as unfamiliar with the operations of a chemical plant as they were with the working of an astronomical observatory.

It should be observed that the case here described is by no means an isolated one. There is reason to believe that there is hardly a large chemical manufacturer in the country who, at one time or other in his life, has not had experiences of a nature similar to this one.

It will be admitted that the question of a technical education is a most important one. It deserves at least as much attention in the United States as it does elsewhere, on account of the remarkable progress and development of industrial activity here. It will be shown in the forthcoming report of the United States Census of Manufactures, that the chemical industry has experienced a more diversified and extended growth than is peculiar to any other branch of productive industry in this country. Owing to the richness of our resources (which we have always enjoyed), and owing especially to the beneficent effects of a high tariff (which we have enjoyed for three decades) the capital invested, the wages paid, and the value of the chemicals and allied products manufactured, represent in the aggregate a degree of prosperity that is most flattering.

It is for this most important field then, that the universities and technological schools of the country prepare their young men. And it is because the quality of this technical talent is so frequently below what is called for, that I venture to draw attention to certain considerations on the subject, that may be of interest.

The method of teaching applied chem-

istry as now generally practiced, consists in describing, in a series of lectures, the manufacture of so many of the various acids, bases and salts as the professor can find time to present. Sometimes certain industry groups are selected, such as soda chemicals, explosives, dye extracts, coal tar products, and so on. But it is evident, on account of the endless array of chemical products, that it is impossible to cover the ground in any but the most superficial manner. It is also an even chance whether the student will ever afterwards be engaged in any of the few industries thus outlined by him in his lecture note book.

It should again be stated that the usual method of instruction consists in describing the manufacture of certain products; the preparation of this salt, that acid, or of that dye. It is invariably upon a series of such products that the classification of the lectures is based, and it is because the name of these chemicals is legion that the instruction must necessarily be incomplete and the knowledge gained vague and indefinite. While such instruction is, of course, better than none, and indeed should be continued, it should be relegated to the position in the curriculum to which it properly belongs, as being a part of the course in general chemistry adapted to all chemical students, but should not be the only groundwork for the training of the future technologist.

What is it that such a young man sees on entering one of our large chemical factories? He observes, on all sides of him, apparatus and machinery for grinding material, for elevating and transporting it. He sees materials under treatment in various ways and at all stages. He notices that in one building or department such and such operations are performed—it may be the solution of some article here, the filtration and washing there. Here he sees the processes of evaporation, or it may be of crystallization or of distillation and condensation. Elsewhere he observes a series of calcining furnaces. In another part of the works are the drying rooms. Many other processes he notices in full operation, of the object of which, and perhaps the very name of which, he is ignorant. The thought that is likely to be deeply impressed upon his mind is: "Why was I taught nothing of this in college?" His mortification is apt to be all the greater when he perceives the number of workmen about him who understand it all. There are foremen, heads of departments, machinists, carpenters and others, no one of whom, perhaps, can write a letter correctly, and yet all experts in their several lines; while he, a university graduate, has not even been taught the use of the tools of his trade.

It is evident that some system of instruction is necessary that is essentially different from that now in vogue. And it is the object of this paper to outline such a plan, which, it may be stated at once, consists in the teaching, not of products, but of processes, and in directing the attention not so much to the chemical, as to the apparatus. The subject can be discussed most clearly by presenting it under three headings: The lectures, the practical work, and the text book.

The Lectures.—Prof. Tyndall once observed that a man who had thoroughly mastered a scientific principle was in

possession of a key that would open many locks. A somewhat similar idea is here applicable; the important point being to place the learner in possession of the knowledge of one particular class of operations at a time, and to make that knowledge comprehensible and thorough, so that its application to any variety of purposes may be possible.

For example, let a series of lectures be given upon the reduction of materials to a fine state of division. The many kinds of crushers, chasers, mills, disintegrators and beaters should be described, especial attention being given to explaining the peculiar adaptability of each kind of such machinery to the physical properties of the substances to be treated. A thorough description of the practical working points of each type of mill should be laid before the student. In the case of an ordinary pair of forty-eight inch hubstones, for example, he would be taught such facts as the average horse power required to drive them, the usual output of the mill per hour, the speed at which it runs, the dress of the stone, and the different qualities of the materials from which they are made. The use of screens and bolting cloth would be touched upon, as well as the methods of handling the tailings. Some mills he would observe are capable of yielding a product large in quantity, but coarse in quality, while others can be used only under conditions exactly the reverse. Some forms of apparatus, like the disintegrator, can treat a damp or plastic material such as a superphosphate or sulphate of alumina, while others will handle dry and brittle substances only, to advantage.

An understanding of the essential principle upon which each of these forms of apparatus works would thus be obtained by the student, who would be able to apply the information, it may be years afterwards, in some distant fertilizing factory in Georgia, or in some remote refining works in the far west.

Continuing in the same line of thought, another series of lectures would be given upon filtration, frequently one of the most difficult of chemical processes. It could be shown how a coarse open substance (like black ash, for instance) can be washed in masses of considerable depth, while others, of a closer or denser nature, like lime-mud or calcium sulphate, must be handled in what, to the tyro, would appear to be amazingly thin and extended surfaces. It would be pointed out how some substances, like gelatinous hydrate of alumina or precipitated ferric hydrate, cannot be filtered at all, practically, on a large scale, but must be washed by decantation. The construction of filters, the selection of proper materials for the filter bed, the application of a vacuum, the handling of the different wash waters, the use of filter presses, and of centrifugals, all of these matters would be discussed in sequence. This would form a scientific classification of the subject that would be valuable to the student, enabling him to apply the information to the preparation of any kind of chemicals, let them be fine pharmaceutical preparations or heavy bulk goods that are made in large quantities.

The method of evaporation of liquids could next be studied, describing the plant necessary for under-heating, for surface heating, and for coil evaporation. The treatment of solutions with gases,

*Read before the World's Congress of Chemists, August 26, 1883, Jour. Amer. Chem. Soc.

the methods of uniformly mixing solids with liquids, the erection and use of reverberatory furnaces, the transportation of solids by elevators, conveyors, belts or link chains, the lifting of liquids, acid or alkaline by pumps, injectors or compressed air; in a word, all the important processes in use in chemical engineering would each, in turn, form the subject of a series of lectures.

In teaching applied chemistry in this manner the important point gained is that the learner's mind is occupied by one class of subjects, or processes, at a time, thus giving him a practical knowledge of each important department of manufacturing chemistry, entirely irrespective of what kind of goods are produced. This is in sharp contrast to the present systems, in which his mind is bewildered by the numerous details involved in the description of the heterogeneous series of chemicals. He perceives that the forms of apparatus in use in the factory are simply so many tools, the construction and use of which he must learn in order to obtain the results, and that when equipped therewith he is "in possession of a key that will open many locks."

The Practical Work.—The study of analytical chemistry, although an excellent training for the mind, has one element of weakness; the learner is taught to depend entirely upon authority. He is obliged to follow out, to the very letter, the methods prescribed by the text book. As a result, he necessarily foregoes any attempt at original work, and as a specialist in analytical chemistry is frequently (in fact, almost always), incapable of supervising any other work than that of the laboratory.

The remedy for this is to catch the chemist when he is young, and introduce him to the methods used on the large scale. It is seldom possible to obtain for the student the entire to chemical works. Such a request is generally declined without thanks. And as the chemical works cannot be brought into the college, it remains that there be established there certain methods of work requiring the same processes of reasoning and the same methods of attacking the problems that are in use in the actual factory.

The important fact, so far as apparatus is concerned, can be obtained from the lectures, and still more fully from the text book. But in regard to the methods of working, valuable information can be had from synthetic experiments of the simplest nature. And it is in such investigations that the student should be well drilled. As an example of the points that can be illustrated in this manner, let a student be required to make, for instance, some copperas, for which purpose he may be furnished with a few ounces of iron nails, some oil of vitriol, a number of large dishes and a funnel. He determines the strength of the acid, using both Twaddle's and Beaume's hydrometers, thus learning the use of these instruments. Converting this into specific gravity he obtains from the tables the percentage of actual SO_3 in the acid, and from that the volume of vitriol required for the given weight of iron. He next calculates the quantity of water necessary to supply the water of crystallization of the salt, as well as that required to hold it in solution, and by this means becomes familiar with the use of tables of solubilities. After solution of

the iron and filtration, he measures the total bulk of the liquid, which is then evaporated to the crystallizing point, and again measured. The conditions most favorable to crystallization are now studied, the weight of crystals obtained and the percentage yield as compared with that of theory, computed. Analysis of the mother liquor will check this, and will familiarize him with the method of calculating milligram per cubic centimeter into pounds per cubic foot.

He is now in position to estimate the size of the vessels necessary to treat a batch of, say, 1,000 pounds of iron, and can, on paper, erect a dissolving tub, filter, evaporating tank, and crystallizer, all of the proper shape and proportion. The best thickness of lead for lining these tanks can be determined, its weight calculated and also its cost. Assuming a price for the iron and vitriol, the cost of these ingredients per ton of crystal can be easily figured out. And all of this from a bottle and a few ounces of iron nails.

This little example is given merely as an illustration of what kind of work can be done. It can, of course, be varied in many ways and with many materials. It matters not a particle upon what salt or preparation the student is put to work. As a matter of fact, the above example would never be put into practice on the large scale, since copperas is nearly always produced as a by-product from other operations, or is made by the weathering of marcasite.

But the training that he receives will teach him the importance of observing the physical properties of substances in the various stages of treatment. By discovering the difficulties to be met he acquires the art of making mistakes on the small scale. The lack of such experience has undoubtedly been the cause of the loss of immense sums of money in many instances.

The Text Book.—To this entire subject of industrial education, as herein described, there is one objection that may be made, namely: What is to prevent such a series of lectures becoming antiquated and out of date in the course of a few years? The answer is to be found in the literature of the subject. How many text books on qualitative analysis are there in existence? As every chemist knows, they are numbered by the score, if not by the hundred. In what important particular does any one of these text books differ from the others? What new fact does it contain? If, now, a subject so utterly thrashed out as qualitative chemical analysis can thus be again and again discussed, what is to prevent the establishment of a series of treatises on chemical technology, by which the whole subject can be brought under control and properly classified? It is important to note that such treatment of the subject would of necessity be cumulative. The experience of one writer would thus be collected and embodied in the treatise of another. The weak points of one text book would be made good in its successor, or in the second edition. The mere fact that no such treatises are in use to-day is precisely the most imperative reason why they should be introduced.

Such a manual would follow the methods indicated in the foregoing. Its object would be to describe, not products, but processes, and it would be to the apparatus and methods of treatment that attention would be given. It is needless

again to go over the ground previously covered, more than to say that each particular class of operations in use in a factory would be treated separately in the proper chapter. In other words, the book would supplement the lectures. The illustrations and plans to scale would describe actual working apparatus and the student would be taught how to handle precipitates and solutions by the ton, just as, in analytical work, he learns to manipulate them in quantities represented by the gram and cubic centimeter.

In addition to such a treatise, the student should be allowed the use of the various journals on chemical technology that are published in the German and English languages. To these should be added the trade journals, of which there are quite a number, and even such material as manufacturers' catalogues and illustrated price lists will be found to contain information of much value upon subjects relating to the supplies needed in all factories.

In conclusion it may be acknowledged that this plan of instruction is essentially a utilitarian one. This is in accordance with the general drift of the scientific education of to-day. To use Lord Bacon's expression, the aim is to gather fruit, not flowers. The training of the mind will incidentally be one of the results of such a system. But the main object will be the imparting of actual knowledge and the teaching of specific facts. The manufacturing chemist who has to meet the difficulties that constantly arise in the practice of his profession is like a man who is lost in the Alps. What he wants is not to improve his mind, but to find the way. The present system of instruction does not meet the requirements made upon it. It teaches the principles of the science, but does not go far enough. As Macaulay said of the ancient philosophers, every trace of intellectual cultivation is there, except a harvest. The subject of industrial chemistry evidently has not received the attention it deserves in our schools of science.

THE CROSS FERTILIZATION OF THE SCIENCES.*

By Robert B. Warder, Washington, D. C.

Science has been defined as knowledge classified; and there are philosophers whose special anxiety is to find pigeon holes duly arranged in rank and file, where the several classes of facts can be stowed away in order like the various genera and species of a fauna or flora. But the boundaries of a science, as of a biological species, can not always be defined. Hybridism in knowledge, as in husbandry, yields offspring of special value. The late Dr. Gray was wont to exhibit the wonderful natural contrivances of the orchids, by which each pistil should not be fertilized by its own pollen, but by that from some other flower. To this habit, no doubt, is largely due that wonderful development of form and color. The practical stock-raiser or horticulturist, with an ideal sheep, or cotton plant, or chrysanthemum, in his mind, proceeds to select and unite the parents, combining the several desirable characteristics, so that the product more and more closely approaches his ideal.

*Opening address, August 25, 1893, to the World's Congress of Chemists. Section of Physical Chemistry. Reprinted from Jour. Am. Chem. Soc.

So, also, in the evolution of science, the most striking developments appear in the judicious combination of distinct parents.

The laws of planetary motions lay hidden, until mathematical analysis under Kepler and Newton joined hands with the long record of nightly observations. In more recent times, a "new astronomy" has arisen, counting its parentage from the old astronomy on one side, and from physics on the other. The presidential address to the American Association on orology, sought to trace the history of the mountain range, by uniting the studies of mathematical physics with stratigraphical and dynamical geology.

It is especially true in the problems of daily life, that conclusions must be reached, not belonging to any one line of investigation, nor to two, but to nearly the whole range of science. A dairyman, for example, with one hundred acres of ground, wishes to produce as many pounds of butter as possible. Geology may contribute to the interpretation of his soil; biology is directly concerned with his pasture and his herd; chemistry and physics deal with the processes of feeding; and manufacture; while the best market for the butter and utilization of by-products must conform to the laws of political economy.

It is needless to multiply such illustrations. The manufacturer and the engineer, can never say of any kind of science, "That will be of no use to me." A life-time may be spent in luxuriating in the riches of any one science (if one has leisure for such luxury), but the most important and fruitful outcome in our day, is usually the product of different sciences.

The fertility of such union is especially noteworthy in chemistry and physics. Look at some examples from the papers just read in this congress. Prof. Prescott, in discussing advances in analysis reminds us of optical and thermal determinations, and of those based on solubility, capillarity, etc. The chemical world, he says, is alive to the new physical chemistry, and none are more indebted than analysts. The same fact is further illustrated in the distinguishing properties of olive oil as set forth by Prof. Risng. The proper adjustment of potential and current is required in electrolytic separations; and the speed of chemical action (varying with the temperature) must be responsible for many discrepancies in the estimation of citrate-soluble phosphates.

Passing to organic chemistry, the question introduced by Prof. Witt, "Why Make So Many Dye-Substances?" led us to the absorption (or subtraction) theory of the mixture of pigments, as distinguished from the addition theory, applicable to physical colors. Still more singular is the extension of the theory of solution to cover the nature of dyed wool, silk, or cotton, where the dye must be selected with due regard to its solubility in the fiber to be colored. In this industry, conditions of chemical equilibrium are especially important.

The scientific and statistical basis for the assessment of farms has been discussed by Professor Thoms. The principles of political economy involved may be referred to those officials who require the farmer to pay more than his share of tax, but the subject of values was seen to be closely linked to both the chemical composition and the physical properties of the soil.

To review the papers on technological chemistry and to point out all the fruits of cross-fertilization between chemistry and physics, would tax patience too far. Some of the more striking illustrations are found in the apparatus for rapid removal of latent heat from vapor or nitric acid as described by Dr. Hart; the judicious selection of a solvent for the electrolysis of alumina, and the economical preparation of a disinfecting fluid by electrolysis of sea water as discussed by Professor Langley.

In all operations and needs of daily life, we find chemical substances adapted to their several purposes in virtue of their physical properties. For many years the discussion of density, solubility, optical, thermal, and electrical properties, crystalline form, etc., were grouped under the name of chemical physics. A vast store of facts was accumulated, of somewhat empirical character, like a valley of dry bones. A new life has appeared with the recent developments of the doctrine of energy. The old name takes a new form. The old numerical data have been greatly extended with the addition of broad generalizations. Physical chemistry is the order of the day. But what is this physical chemistry? And what is it for?

Nearly twenty years ago, a chemical student in Berlin was using costly organic materials by the hectogram or kilogram to prepare some new compound in quantities barely sufficient for analysis. Looking forward he dreamed of some general laws yet to be discovered, by which it might be known whether a given blackboard equation would or would not find its counterpart in the laboratory without the necessity for such expenditure of time and material to prove each point. Are we not to-day somewhat nearer the realization of that dream?

We form a plan and want to know whether it will work. We put it into execution and find it works in part. There are losses, sources of waste that must be overcome before the process can fulfill our wishes. We now ask, not merely, will it work? but how far will it work? And this is the very question in its general form which occupied the mind of J. Willard Gibbs about the same time that the student was indulging in his reveries. The result was a paper, "On the Equilibrium of Heterogeneous Substances," a paper bristling with differentials and integrals, with the merit of applying equally to physical and to chemical operations. It presents the fundamental principles of change or non-change in general terms, requiring only the proper application of minor premises to yield the particular facts desired. Experiment is still made to find the minor premise, but rapid progress has been made.

This is abundantly shown by Professor Oswald's last volume on chemical energy, covering more than 1,100 pages. This distinguished author has very kindly sent us a brief review of the leading principles in the paper next on the programme.

Sooner or later this new heaven will doubtless be felt in agriculture, in technology and in biology. Already we find a special chair of physical chemistry in Cornell University, from which we shall hear further. Other universities may do well to recognize this middle field in fixing the limits of the several professorships. The time is at least ripe for a general acquaintance with the subject.

PHARMACY.

GODDARD'S GARGLE. In 6 ounces of boiling water digest 2 drams alcohol, 1-2 ounce pomegranate bark, 1 dram red rose petals, and 1 ounce honey, strain. Can be used without dilution or with an equal quantity of water.

CHILLBLAIN OINTMENT. For an application which is very serviceable in cases of chillblain where the skin is broken or badly abraded and very sensitive, there is recommended an ointment composed of 2 drams turpentine ointment, 11-2 drams elemi ointment, 11-2 ounces zinc ointment.

ADULTERATED TINCTURE OF RHUBARB. They are not so lenient in England as here with those who are found guilty of selling adulterated or even delicate strength drugs. In a recent instance a firm was convicted of selling tincture of rhubarb entirely destitute of saffron and containing over 65 per cent of water. The judge imposed but a nominal fine, but remarked that in future cases the full penalty of 20 pounds would be exacted, as the practice was a most dangerous one.

A NEW EXPLOSIVE. The Chemist and Druggist publishes a very brief statement concerning a new explosive upon which M. Raoul Metet has been working. This explosive is a liquid which is said to exceed all known explosives in power. It is said to be uncongealable and to burn smokelessly, while its preparation and transport are entirely free from danger. The Swiss military authorities have already made experiments with it and the prospect is that they will soon decide upon the purchase of the process of manufacture.

TRANSPARENT LEATHER. The Popular Science News translates from foreign source the following process for the manufacture of transparent leather: The hair is removed from the hide, which is then tightly stretched upon a frame and thoroughly rubbed with a mixture of glycerine 1,000 parts, salicylic acid, 2 parts, picric acid 2 parts, and boric acid 25 parts. Before the hide is thoroughly dry it is placed in a room which the sun does not penetrate and is then saturated with a solution of bichromate of potassium. After it is thoroughly dried, an alcoholic solution of tortoise shell is applied to its surface, giving a transparent aspect. The leather thus produced is very flexible and appropriate for the manufacture of toilet articles, etc.

MEAT EXTRACTS. The public analyst of Glasgow has been examining into the relative values of some of the leading brands of extract of beef and Public Health reprints his report, made to the chief sanitary inspector. The analyst entered upon his investigations with a view of ascertaining whether the following points were well carried out in the manufacture of the several extracts, viz.: 1. Freedom from water in excess; 2. freedom from fat; 3. palatability. He denies the prevalent belief that meat extract contains more nutriment than the same weight of meat, for no extract can contain more than the soluble parts of the beef, which are only one-fifteenth or less of the weight of the beef itself. The following table represents the results of his examinations:

	PER CENT.			
	Bovril Fluid Beef.	Liebig's Extract of Meat.	Valentine's Meat Juice.	Brand's Essence of Beef.
Water	29.42	10.75	51.40	50.48
Either Extract	0.56	0.08	0.64	TRICE.
Albumen, Peptones and Gelatin	14.67	17.91	7.66	4.88
Chlorides	37.01	42.20	18.56	2.48
Non-Nitrogenous Extractives	19.34	8.59	11.96	0.47
Mineral Matter	18.43	20.74	10.88	1.24
Protein solids	100.00	100.00	100.00	100.00
Yeast	79.68	80.21	48.60	9.62
Yeast from which the food sample is derived	2.028	2.028	2.93 0/28	2.93 0/28
Yeast of lean least beef required to make 1 lb. of extract	24.6	27.6	17.5	4.1
	12.3	13.8	7.5	1.6

Referring to the qualifications, stated above, which the beef extract should have the analyst says that: "In making a comparison of the relative values of these samples, it is only necessary to determine how far they comply with the above requirements. Bovril does this within 20 per cent, but it is but fair that allowance should be made to this extent for water necessarily present to keep the extract in a soft state. Liebig's also complies with these conditions, and even more closely, as this extract shows little over 10 per cent of water, but it is an extra dry one. Valentine's, containing as it does, over 50 per cent of water, does not fulfill these conditions, so that after allowing for 20 per cent water, it might well be 30 per cent stronger. Brand's extract is scarcely an extract at all in anything else than the name, as is obvious from the fact that it contains over 90 per cent of water, so that after allowing for 20 per cent water it might contain 70 per cent more dry extract of beef."

FLUORINE.

The "Demonstration of the Preparation and Properties of Fluorine by Moissan's Method," by M. Moissan's assistant, Dr. Meslans, was the popular event of the proceedings in the chemical section of the recent meeting of the British Association, and is described by Engineering (Sci. Amer.) as follows: Some years ago M. Moissan isolated fluorine, which so far had baffled all attempts at separation, and in a measure remained a hypothetical element.

M. Moissan, regretting his inability to come himself, sent over his assistant with a full plant, which was exhibited. M. Meslans contented himself with demonstrating, making brief remarks in French, and converted all doubters. If any were present, into enthusiastic believers. Fluorspar is decomposed in a platinum retort by means of sulphuric acid, and the anhydrous hydrofluoric acid, dried and purified, brought into a U-tube for electrolytic decomposition. The vessels and tubes are of platinum; the stoppers of fluorspar. The hydrofluoric acid is an insulator, and resisted all electrolytic attacks until Fremy

suggested the addition of a fifth fluoride of potassium. The U-tube stood in a cooling vessel of about a quart capacity, containing condensed methyl chloride, which reduces the temperature to negative 23 degrees Cent. As soon as the current of 70 volts and 25 amperes was turned on, minor explosions were heard and fumes began to issue from the platinum fine tube through which the fluorine was to escape into the air. It did so; and, although it did not appear so vicious as it has been described, soon set the crowded audience coughing and longing for fresh air. Nobody was any the worse for it, however. As the fluorine at once decomposes, with the moisture in the air, into hydrofluoric acid and ozone, these two substances were practically what was smelt and felt; ammonia was passed round instead of eau de cologne. The experiment had to be temporarily interrupted after some minutes, as the stock of methyl chloride gave out; M. Meslans had been experimenting the day previous. The low temperature is necessary on account of the high volatility of the hydrofluoric acid. As, however, some of the potassium salt, carried over by the violence of the reaction, stops up the discharge tube, which is the size of a clay pipe stem. Dr. Meslans was constantly applying his Bunsen to heat the tube. Iodine at once combined with fluorine under explosion; sulphur burned with its well-known blue flame; phosphorus as in oxygen; silicon and boron glowed like burning coal; carbon itself would not catch fire. It does so under proper conditions. On the motion of Sir Henry Roscoe, the thanks of the association were conveyed to M. Moissan by wire. Dr. Thorpe said that M. Moissan had been kind enough to examine his apparatus, which he had sent over to Paris; but that he, however, had not been able yet to repeat the experiment. On the request of the president, he gave a summary of the properties of the now fairly settled refractory element. It attacks everything—even the platinum-iridium electrodes. As to its appearance, even Moissan can hardly speak, as it cannot be brought into transparent vessels, and fumes so badly. It seems to be a greenish-yellowish gas, like chlorine. Its atomic weight Moissan has determined by filling two exactly equal platinum jars with nitrogen, and replacing in the one the nitrogen by fluorine; since the atomic weights of nitrogen (14) and fluorine (19) do not differ much, however, this determination is not very reliable. M. Meslans also exhibited one of Moissan's latest products, uranium carbide, obtained in his electrical furnace. This is a dull blackish mass, which, when shaken in the stoppered bottle, sparks most energetically; the carbide, or its combustion product, has a peculiar smell.

VINEGAR.

While vinegar is used in the daily meal, yet it passes as something never questioned and little known about. It is a condiment upon which much of the delicate flavoring of food depends. Its mere "acidity," however, is not the only requisite to a good quality. Originally vinegar, as its name implies, was made only from wine. It was the only acid known to the ancients. In 1648, Glauber, the celebrated chemist, speaks of a product obtained by the dry distillation of wood in a way which shows his appreciation of its identity with vinegar, and states

that by rectification it can be made as good as wine vinegar.

It is very difficult, in modern manufacture, says National Grocer, to give a precise definition of this product. The so-called vinegars of commerce may be chemically divided into two classes; those which are the consecutive alcoholic and acetous fermentations, and those which are not. Under the first-class come those made from first, wine; second, spirits; third, malt-wort or beer; fourth, fermented fruit juices other than wine; and fifth, sugar beets. Under the second class, vinegar manufactured from the destructive distillation of wood forms the chief variety.

The wines used are both red and white, of inferior quality, or considered unfit for drinking. New wines are not good for this purpose, as they are apt to undergo putrid or rosy fermentation. In addition to acetic acid, the wine vinegar contains various acids, but especially tartaric and succinic, the latter imparting the peculiarly agreeable flavor and odor. The spirits used are chiefly the potato brandy of Germany and whisky in this country. This makes really an artificial wine vinegar containing only water, acetic acid and a small quantity of acetic ether. Cider and perry are about the only fruit juices besides wine fermented for the production of vinegar. Malic acid is its characteristic flavoring element. Beer, grain, or malt-wort vinegar contains extractive matters, as dextrine, nitrogenous substances, and phosphoric acid. Sugar beets are used somewhat in France.

At the present time the Society of Public Analysts of London is investigating the manufacture of vinegar. They do not enter upon a hygienic examination, but urge the necessity of government inspection and proper labeling; the same point that has so frequently been urged in the bulletins of the United States Agricultural Department. The fictitious vinegars are mostly pyroligneous acid, with acetic ether added as a flavoring, fusel oil, oil of cloves and butyric ether added to give aroma. Sulphuric acid is sometimes found in cheap vinegars, its purpose being more to prevent putrefaction than an adulteration.

Briefly, the theory of the manufacture of vinegar is this: All oxidizing agents convert alcohol first into aldehyde and then into acetic acid. Fermented liquors, when exposed to the air, soon become sour. This depends upon the fact that they contain nitrogenous compounds which act as carriers of atmospheric oxygen. This, however, can only take place when the percentage of alcohol does not exceed a certain limit. It is for this reason that strong wine, such as port or sherry, does not become sour on exposure to air. This oxygen-carrying body is the acetic ferment. This ferment is always floating in the air, and when it falls into conditions suitable for its development it very rapidly multiplies. These ferments grow on the surface of the liquid where the oxygen is, forming a gelatinous skin, which by its increasing weight falls to the bottom. Another skin forms and this process goes on till the liquid is exhausted of its assimilable material. The skin, called the "mother of vinegar," consists of a multitude of the minute ferments. One hundred pounds of alcohol require three hundred pounds of air to convert it into active acid.

NEW REMEDIES.

HEININE is another of the many euphoniously named preparations, which, within the past two or three years, have come to attention. A physician contributes to the Homeopathic News a careful account of his experiences with this article, but neglects to state its particular character. He uses it by hypodermic injection for the treatment of hernia and claims to achieve excellent results. Without particular reference to this case, we would suggest that someone invent a Brainine, the injection of which might serve for the improvement of the brain power of some of our inventors of so-called medicinal preparations.

FERRATIN is a compound of iron which Smilesberg claims to have obtained from the liver of the hog and finds to contain 6 per cent of iron. It appears in commerce as a fine reddish-brown powder, of two varieties, one insoluble and the other a sodium combination, easily soluble in water, but to make this a soluble compound it is necessary that the water be free from lime to prevent precipitation of calcium ferratin. A solution of the sodium compound is recommended as an addition to infant's food, while either form is well administered in powder. From one and one-half grains to seven grains daily for children and from 15 to 22 grains for adults, given in one dose or divided into two or three. Acid foods should be avoided during administration of the remedy.

PHARMACY OF BROMOFORM. This drug has found more or less successful application in the treatment of whooping cough, and directions have generally been given for its dispensing in aqueous solution assisted by a little alcohol. W. Lyon, in a paper read before the Edinburgh Pharmacists, Assistants and Apprentices' Association recently, stated that a prescription of this character was handed to him for compounding. He found that the bromoform dissolved readily in the alcohol, but separated upon adding the requisite quantity of water and would not again dissolve on shaking. Upon the advice of the physician, sufficient alcohol was added to give a solution, but it proved unfortunate to the patient, a child, in that the toxicating effects of the alcohol were very noticeable. Therefore, the author experimented to arrive at some satisfactory pharmaceutical combination of bromoform for medicinal administration. He obtained fairly satisfactory results by the use of mucilage of acacia. Mucilage of Irish moss was similarly satisfactory, though with both of these a slight separation of the bromoform occurred, but was readily distributed through the water on being shaken. Tragacanth was a failure, and various other mixtures tried did not give fully satisfactory returns. The conclusion of his work was in favor of a mixture of which the following is a type: Bromoform, 16 minims, alcohol 2 drams, glycerine, 12 drams, compound tincture of cardamoms, 2 drams, mixed in the order named. This combination was that advised by the late P. W. Bedford, and proves to be the best yet presented for the administration of bromoform.

FORMULARY
AND
QUESTION BOX.

The object of this department is to furnish our subscribers with reliable and tried formulas and to discuss questions relating to practical pharmacy, prescription work, dispensing difficulties, etc.
Requests for information are not acknowledged by mail and ANONYMOUS COMMUNICATIONS RECEIVE NO ATTENTION. To insure answer in the next number, queries should be in our hands *ten days* prior to the date of issue.

QUESTIONS ANSWERED

Correction.

By a transcription in the "makeup" of page 552, December 15, 1893, Era, the four lines required to complete the query on "Insecticides for Agriculturists' Use" in the last column, were made to appear at the bottom of the first column. They should appear at the bottom of the third column.

5843. Puley's Cream.

(H & C.) See Era of December 15, 1893, page 549.

5840. Frostlin.

(H & C.) See formulas in the reply to query No. 5827, December 15, 1893, Era, page 549.

5841. Oklahoma Board of Pharmacy.

(L. A. H.) The secretary is C. P. Wickmiller, Kingsfisher. The board will hold its next meeting at El Reno on the first Tuesday in January, 1894. Full information may be obtained by writing the secretary at the above address.

5842. Hazeline Cream.

(P. M.) Try the following:

Lanoline 4 ounces.
Soft paraffin 4 ounces.
Witch hazel extract (N. F.) 2 ounces.

Incorporate thoroughly.

5843. Francoina.

(H & C.) The following was published in the Amer. Drug. for producing a similar article:

Prepare a thick, almost jellylike infusion of flaxseed, and add to it 20 per cent of its volume of glycerine, with which has been mixed sufficient salicylic acid to make the finished product contain 2 grains in each fluid ounce. Perfume according to taste.

5844. No-To-Ilac.

(A. F. R.) Most of the so-called tobacco cures, we believe, contain tonic and aromatic substances such as gentian, Canada snakeroot, etc., and some are said to include coca leaves. The principal aim of all of them is to divert the attention from the craving for tobacco and to satisfy this craving by substituting indifferent substances which are either nauseous or pleasing to the taste. Some experimenters work in one direction, and others in another. For more extended remarks on the subject, see Era, October 1, 1893, page 393.

5845. Lithiated Hydrangea.

(L. C. R.) The manufacturers state that each fluid dram "represents thirty grains fresh hydrangea and three grains pure benzo-salicylate of lithium." The following formula is suggested as making a similar preparation:

Lithium carbonate.... 120 grains.
Lithium benzoate 60 grains.
Fluid extract hy-
drangea 1½ fl. ounces.
Alcohol 2 fl. ounces.
Water 13 fl. ounces.
Mix, dissolve and filter.

5846. Solution Bromides Compound.

(C. G. & L. A. H.) Try the following:
Potassium bromide, 640 grains.
Sodium bromide, 512 grains.
Ammonium bromide, 128 grains.
Calcium bromide, 128 grains.
Water 4 ounces.
Alcohol 2 ounces.
Orange wine, a sufficient quantity to make..... 16 ounces.
Caramel to color.

See also Era of June 15, 1893, page 542.

5847. Sel de Gregory.

(B. T. S.) This is the name applied by the French Codex to a mixture of the hydrochlorates of morphine and codeine, as precipitated from an aqueous solution of opium by chloride of calcium. The process for the preparation of morphine hydrochlorate in the British Pharmacopoeia, employs chloride of lime to precipitate the morphine and codeine as hydrochlorates, the morphine hydrochlorate thus formed being afterward decomposed by ammonia, the morphine subsequently washed and treated with hydrochloric acid. This process was first presented by Dr. Gregory, of Edinburgh, and adopted by the Edinburgh College, hence the name. His process is substantially that employed by the British Pharmacopoeia at the present time.

5848. Syrup of Turpentine.

(T. B. T.) The following is taken from the Era Formulary:

White turpentine..... 1 ounce.
Tincture of tolu..... 4 fl. drams.
Magnesium carbonate... 4 drams.
Glycerine 2 fl. ounces.
Acacia 2 ounces.
Sugar 20 ounces.
Water sufficient to make 24 fl. ounces.
Triturate the turpentine, tincture of tolu and magnesium carbonate well together, gradually adding 6 fluid ounces of water, and filter. In the filtrate dissolve the sugar and acacia and add the glycerine and sufficient water to make 24 fluid ounces.

5849. Kennedy's Pinus Canadensis, White.

(F. & C.) The following formula was published in the Pharm. Rund. several years ago as making a very similar preparation:

1. Zinc sulphate..... 10 parts.
Glucose 20 parts.
Water 70 parts.
Oil of hemlock..... a few drops.

Here is another from the Times and Register:

2. Zinc sulphate..... 1 dram.
Glucose 1 ounce.
Water enough to make..... 16 ounces.
Flavor by adding oil pinus sylvestris.

5850. Detannating Substances Containing Tannin.

(L. F.) asks for a simple and practical process for depriving substances of their tannin. This may be accomplished by adding to the preparation to be detannated any substance which will combine with the astringent principles and form precipitates which may be removed by filtration. Freshly precipitated ferric hydrate, albumen and gelatine are all used for the purpose, as they readily form precipitates with vegetable astringents. Of the processes suggested that one using freshly precipitated ferric hydrate is, in our estimation, best adapted for the purpose. It may be a little tedious, but it is simple, practicable and thorough. A complete working process

The chemist wrote it "Inorganic analysis," but the printer set it "Ignoramus analysis."

may be found in the National Formulary under the formula for Detannated Tincture of Cinchona.

5851. Wheat Grain For Poisoning Mice.

(J. E. H.):

Wheat (whole).....	2 pounds.
Nitrate of strychnine....	45 grains.
Fuchsine	q. s.
Saccharin	15 grains.
Water	q. s.

Dissolve the nitrate (or any other salt) of strychnine in a pint of water, which has been colored with a sufficient quantity (about 4 grains) of fuchsine. Introduce the wheat into this liquid and macerate for one or two days, until the wheat has soaked up all the liquid. Then drain the wheat, dry it partly, and impregnate it with a solution of the saccharin in about 4 ounces of water, prepared with the aid of a little bicarbonate of sodium (or with a mixture of $\frac{1}{2}$ fluid ounce of solution of saccharin (Nat. Form.) and $\frac{3}{4}$ ounces of water.

5852. Extract of Cannabis Indica in Aqueous Mixture.

(J. F. A.) asks how to incorporate solid extract of cannabis indica in an aqueous mixture, as some manufacturers claim to do. We do not know. Extract of cannabis indica is a very resinous preparation and comparatively insoluble in aqueous solutions. The only way in which any extract might be dissolved in the mixture would be by making it alcoholic, or it might be suspended in an aqueous mixture by introducing some emulsifying agent, as is done in the National Formulary in the formula for compound extract of chloral and bromide of potassium. The presence of very much alcohol in a mixture like the formula cited, would be inadmissible, inasmuch as a reaction is likely to occur between the chloral and the alcohol, especially when the latter is present in more than very small quantities. See also note in the National Formulary under formula for Compound Mixture of Chloral and Potassium Bromide.

5853. Fluid Extract of Eucalyptus in a Prescription.

(O. A. R.) asks if the following prescription can be compounded without forming a precipitate or sediment:

Fluid extract eucalyptus.....	1 ounce.
Fluid extract glycyrrhiza.....	3 drams.
Ammonium muriate.....	2 drams.
Syrup of tolu sufficient	
to make.....	4 ounces.

The question as to turbidity involved in this prescription is similar to that asked in another query, the difficulty arising from the insolubility of the resin of the fluid extract of eucalyptus in the syrup of tolu. By substituting alcohol for part of the syrup of tolu a clear mixture may be obtained, taking care, however, to retain enough water in the mixture to dissolve the ammonium muriate. Such substitution should not be made without the consent of the prescriber.

5854. Sympathetic Ink.

(L. A. H.) Here are several formulas from the Era Formulary:

1. A weak solution of nitrate of copper gives an invisible writing, which becomes red through heat.

2. A very dilute solution of perchloride of copper gives invisible characters that become yellow through heat.

3. Solution of chloride or nitro-muriate of cobalt turns green when heated and

disappears again on cooling. If the salt is pure, the marks turn blue.

4. Onion juice; will become yellow when exposed to heat.

5. Oxide of cobalt..... $\frac{1}{2}$ ounce.
Muriatic acid, sufficient to dissolve it.
Water

4 ounces.
Mucilage of gum acacia..... 1 dram.
Characters written on paper with this solution are invisible, but on the application of heat they instantly appear in blue. On cooling they become invisible again.

5855. Acetanilid Compound.

(D. W. B. T.) Here are some formulas for acetanilid compound. You can take your choice.

- 1) Dr. Fitcher's formula—
Acetanilid

2½ grains.

Fluid extract gelsemium. 1 minim.

2) Dr. Gray's formula—
Acetanilid

2½ grains.

Caffeine citrate..... 1 grain.

Gelsemium

1-10 grain.

3) Acetanilid

2½ grains.

Tully's powder..... 3 grains.

4) Acetanilid Compound for Migraine—
Acetanilid

2 grains.

Camphor monobromated. $\frac{1}{2}$ grain.

Caffeine citrate..... $\frac{1}{2}$ grain.

See also Era of September 1, 1893, page 204.

5856. King's New Discovery.

(E. J. V. N.) This is a proprietary preparation, and, of course, its exact composition is unknown to us. The American Druggist, however, is the authority for the statement that the preparation is very similar in composition to one made according to the following formula:

Sulphate morphia..... 8 grains.

Fluid extract ipecac..... $\frac{1}{2}$ dram.

Chloroform

60 drops.

Tincture white pine..... 2 ounces.

Water

7 ounces.

Carbonate magnesia..... $\frac{1}{4}$ ounce.

Sugar

14 ounces.

Rub the magnesia with one ounce of the sugar in a mortar, and triturate with the tincture of white pine and the fluid extract of ipecac; gradually add the water and triturate with the mixture in the mortar. Filter, and dissolve the sulphate of morphia in the filtrate; mix the chloroform with the rest of the sugar in the bottle and add the liquid above.

5857. Iron Pyrophosphate and Phosphoric Acid.

(L. M.) Criticism is asked upon the following prescription:

Arsenous acid..... 0.016 grams.

Strychnine sulphate..... 0.016 grams.

Iron pyrophosphate..... 4.0 grams.

Phosphoric acid dilute..... 32.0 grams.

Syrup of ginger..... 32.0 grams.

The difficulty in this prescription arises from the fact that the Pharmacopoeial dilute phosphoric acid is incompatible with pyrophosphate of iron. When combined a gelatinous precipitate is produced. This precipitation can be obviated by using the same amount of dilute metaphosphoric acid of the National Formulary, which represents an equal acid strength to the dilute tribasic acid of the Pharmacopoeia. A clear mixture cannot be made from the prescription as it stands. Before any substitution be made, however, the prescriber should be informed of the reaction, so that it can be remedied. It remains for him to decide whether the therapeutic value of

the metaphosphoric acid is the same as that of the tribasic acid of the Pharmacopoeia.

5858. Sweetening the Feet.

(L. S. & B.) Here are a number of formulas taken from the Era Formulary: 1) Potassium permanganate. 20 grains.

Water

2 ounces.

Apply to the soles of the feet and between the toes on retiring.

2) Chloral hydrate..... 2 scruples.

Water

1 ounce.

Apply to the soles of the feet and between the toes on retiring.

3) A 5 per cent solution of chromic acid applied to the feet after bathing and thoroughly drying them. Apply with a brush. Two or three treatments are sufficient.

4) A powder composed of salicylic acid, soap, talc and starch. The powder renders the feet firm, induces an agreeable softness, and removes all unpleasant odor, its action being to prevent the formation of butyric, valeric and other acids of the same family, which injure the feet.

5859. Ingrowing Toe Nail.

(E. S. E.) is sometimes caused by wearing narrow-toed shoes, and neglecting to keep the nails properly trimmed and from accumulations of foreign material. In treating the affection, the parts should be relieved of all pressure, and only broad and roomy shoes should be worn. The nails should be trimmed square across; the corners allowed to extend beyond the flesh. Remove all foreign matter from the seat of inflammation, apply a coating of collodion and then gently insert absorbent cotton or lint between the nail and the sore parts. If necessary, the absorbent cotton may be held in place by a piece of adhesive plaster around the end of the toe; renew every day until a cure is effected. Another very rational method employs a 40 per cent solution of caustic potash, which is first applied to the nail, and after a short time it is scraped with glass. The application and scraping are alternately repeated, until the nail is reduced to the thickness of writing paper, when it is raised out of the groove and the incurved portion excised. One advantage of this practice is, that the patient is generally able to follow his usual avocation without the loss of any time. For another method see Era of December 1, 1893, page 499.

5860 Mounting Photographs on Glass; Ivory Type.

(B. C. W.) Make a good print on plain paper; if the portrait is that of a fair person let the tone of the print be warm, if a dark person let it be cold tone. The print has to be colored on the surface as an ordinary colored miniature, only coloring it stronger to allow for the toning down it will presently receive. In this stage it will look like an ordinary photograph over-colored. The next point is to communicate to it the softness, creamy delicacy and transparency of an ivory miniature. This is effected by attaching it to white plate glass by white wax and gum dammar. Melt in a jar by gentle heat 2 ounces of the best white wax, and add a piece of gum dammar about the size of a hazel nut. When these are thoroughly mixed place a little on the clean glass plate which is to receive the picture. Heat the plate gently, and when the gum and wax melt and flow over the

plate, the colored photograph must be carefully laid down on the melted wax, the greatest care being taken to avoid air-bubbles and to preserve an equal layer of wax all through. Should air-bubbles show when the plate is cold, or the wax appear unequally thick, the plate can be rewarmed, and with a warm palette knife remove the irregularities by a gentle pressure.

5861. Paste to Remove Grease Spots From Cloth.

(S. & J.) The following are taken from the Era Formulary:

Oleic acid..... 1 part.
 Borax..... 2 parts.
 Oxgall, fresh..... 5 parts.
 Tallow soap..... 20 parts.
 Triturate the borax with the oxgall, then thoroughly incorporate with it the soap, previously reduced to powder, and lastly incorporate the oleic acid.
 2.) Extract quillaya..... 1 ounce.
 Borax..... 1 ounce.
 Oxgall, fresh..... 4 ounces.
 Tallow soap..... 15 ounces.
 Triturate the borax with the extract of quillaya and afterwards with the oxgall, which will cause at least partial solution. Then thoroughly incorporate with it the soap so as to produce a plastic mass, which may be molded into sticks or put into boxes. If no extract of quillaya is at hand, soap bark in shreds may be exhausted with boiling water, and the liquid evaporated on a water bath. One hundred parts of bark yield about 20 parts of the extract.

In the authority quoted may be found a number of formulas of a similar nature.

5862. Face Bleach.

(J. A. M.) Many preparations of this nature contain corrosive sublimate, the indiscriminate use of which is questionable and should be discouraged. Some of these preparations are directed to be applied once or twice a day to the face, after first washing in hot water, and subsequently washing again a short time after the application has been made. Other preparations of a similar nature are sometimes applied to the face at night upon three or four thicknesses of linen, cut to fit, removing them when dry. A redness of the skin sometimes follows after a few applications, the epidermis then peeling off in fine scales. An ointment or cold cream should then be applied, the following having been very highly recommended for the purpose:

Spermaceti..... 7 grams.
 White wax..... 7 grams.
 Oil sweet almond..... 14 grams.
 White precipitate..... 14 grams.
 Salicylic acid..... 1 gram.
 Use night or morning, gently rubbed in with the finger.

The following solution has also been recommended as a face bleach and, as it contains no poisonous substances, seems to be a very desirable one.

Bismuth subnitrate... 4 to 6 drams.
 Glycerine..... 2 drams.
 Water..... 4 ounces.
 Perfume, a sufficiency.

5863. Syrup Iodide of Iron.

(A. F. M.) asks for further particulars regarding the preparation of syrup iodide of iron from the formula for a solution iodide of iron given in the December 1st Era, page 498: Iodine, 16.40 grams; iron filings, 8 grams; and distilled water, 20 grams, are heated together until the re-

action is complete, and the solution filtered whilst hot into a vessel containing pure glycerine, 220 grams. The filter is washed with a jet of boiling distilled water, and the mixed liquids are then warmed gently until the contents of the vessel weigh 240 grams. The solution is immediately poured into well-dried vials, containing when filled 18, 36 and 72 grams respectively; these are at once corked securely, and, when cool, the corks are well paraffined. When required for use the contents of the vials are mixed with sufficient syrup to make $\frac{1}{2}$, $\frac{1}{4}$ or 1 litre of syrup iodide of iron, according to size, and both the solution and syrup thus prepared are said to keep without change. The strength of syrup iodide of iron varies in the different pharmacopoeias, that of the French Codex being much weaker than the others; 1 part of iodine (1.2 part of ferrous iodide) is represented by about 12—(U. S.), 21.5 (Fr.), 24.4 (P. G.), and 24 (F. Codex), parts of syrup; or 1.00 parts of the syrup contain 83 (U. S.), 46.5 (Fr.), 41 (P. G.), and 41.0 (F. Codex) parts of iodine.

The solution of iodide of iron made by the above process contains about .068 grams iodine in each gram of syrup, equivalent to about .0816 grams of ferrous iodide in the same quantity, which makes it weaker than the U. S. P. syrup and, of course, the dilutions with syrup make it still weaker in iodine and ferrous iodide content.

5864. Polish for Patent Leather.

(R. O. M.) French Paste for Patent Leather.—To preserve the gloss of patent leather the following preparation is used: Melt pure wax over a water bath. Place it on a moderate coal fire, add first some olive oil and then some lard, and mix intimately by stirring. Then add some oil of turpentine, and finally some oil of lavender. The resulting paste is filled in boxes, where, on congealing, it will acquire the requisite consistency. Apply a little of it to the shoe or boot, and rub with a linen rag, which will restore the gloss to the leather and keep it soft and prevent cracking.

2.) Gum..... 8 ounces.
 Treacle..... 2 ounces.
 Ink..... 1 pint.
 Vinegar..... 1 ounce.
 Sweet oil..... 1 ounce.
 Alcohol..... 2 ounces.
 Lampblack..... $\frac{1}{4}$ ounce.

3.) Cracks in patent leather: Take $\frac{1}{2}$ pound molasses or sugar, 1 ounce gum arabic and 2 pounds ivory black; boil them well together, then let the vessel stand until quite cooled, after which bottle off. This is an excellent reviver and may be used as a blacking in the ordinary way, no brushes or polishing being required.

5865. Prescription Query.

(G. E.) asks if the following prescriptions can be compounded so as to make transparent mixtures. Would it be practicable to add glycerine to the first formula to clear the mixture, and should the last one be dispensed with a "shake" label upon the bottle:

1.) Fluid extract ipecac..... $\frac{1}{2}$ ounce.
 Fluid extract licorice... $\frac{1}{2}$ ounce.
 Paregoric..... $\frac{1}{2}$ ounce.
 Syrup enough to make 3 ounces.
 2.) Ammonium muriate..... 1 dram.
 Morphine acetate..... 1 grain.
 Syrup senega..... $\frac{1}{2}$ drams.
 Creosote..... 10 minims.

Fluid extract eucalyptus..... 3 fl. drams.
 Syrup wild cherry, enough to make..... 4 ounces.

Neither of these prescriptions can be dispensed as written to make transparent mixtures, owing to the different solvent properties of the menstrua employed. If the ingredients employed in the first prescription are made according to the Pharmacopoeia, there should be no necessity of adding glycerine to clear the mixture, which should be dispensed as written. In the second case, the turbidity of the mixture is caused by the insolubility of the resin of the fluid extract of eucalyptus in the solvents of the mixture. In dispensing this prescription, the salts should be first dissolved in the syrups, and the creosote dissolved in the fluid extract of eucalyptus, the two solutions then gradually mixed, shaking after each addition, and the mixture sent out under a "shake" label.

5866. Quinin's Ointment.

(P. D. S.) This is a proprietary preparation and its composition is unknown to us. Here are, however, several formulas for veterinary ointments taken from the Era Formulary, some one of which may prove satisfactory to you.

1.) Chalk..... 12 $\frac{1}{2}$ pounds.
 Soft soap..... 5 pounds.
 Water..... 5 quarts.
 Heat to the boiling point and add:
 Chlorinated lime..... 10 ounces.
 Water..... 2 $\frac{1}{2}$ ounces.
 Boil until pasty and add:
 Creolin..... 5 ounces.
 Friar's balsam..... 10 ounces.

The ointment may also be used, when mixed with water, for laundry purposes and as a garden insecticide.

2.) Resin ointment..... 5 ounces.
 Verdigris..... $\frac{1}{4}$ ounce.
 Turpentine..... 2 ounces.
 Mutton tallow..... 2 pounds.
 Oil of origanum..... $\frac{1}{2}$ ounce.
 Tincture of iodine..... $\frac{1}{2}$ ounce.

This is a good remedy for scratches, hoof-evils, cuts, etc.

3.) A very good stimulating liniment may be made as follows:

Castor oil..... 2 ounces.
 Rape oil..... 2 ounces.
 Turpentine..... 2 ounces.
 Shake them and then add:
 Strong solution of ammonia..... 3 ounces.
 Water..... 3 ounces.

5867. English Pain Cure.

(J. W. B.) We do not find it advisable to make a complete analysis of the preparation you sent. Here are, however, several formulas, some one of which may be of service to you:

1.) Oil sassafras..... 1 fl. ounce.
 Oil peppermint..... 1 fl. dram.
 Oil hemplock..... $\frac{1}{4}$ fl. ounce.
 Capsicum..... $\frac{1}{2}$ ounce.
 Camphor..... $\frac{1}{4}$ ounce.
 Hoffman's anodyne..... 2 ounces.
 Alcohol enough to make 1 pint.
 Macerate the mixed ingredients for a week or ten days, agitating frequently, and filter.

2.) Camphor..... $\frac{1}{4}$ ounce.
 Capsicum..... $\frac{1}{2}$ ounce.
 Oil turpentine..... $\frac{1}{2}$ fl. ounce.
 Oil sassafras..... $\frac{1}{2}$ fl. ounce.
 Ether..... $\frac{1}{2}$ fl. ounce.
 Alcohol, enough to make 1 pint.

3.) Oil sassafras.....	1 fl. ounce.
Oil cloves.....	¼ fl. ounce.
Oil turpentine.....	½ fl. ounce.
Ether.....	½ fl. ounce.
Capsicum.....	¼ ounce.

Alcohol enough to make 1 pint.
4.) Here is a formula for a pain cure taken from the New Idea:

Oil sassafras.....	10% fl. drams.
Aqua ammonia.....	5½ fl. drams.
Tincture capsicum.....	10% fl. drams.

Alcohol enough to make 1 pint.

Dose, one teaspoonful.

Formulas 2 and 3 are very close imitations of the sample supplied.

5868. Skin Food.

(A. F. M.) Many of these preparations are, in reality, cold creams or salves prepared with some suitable odor and colored as desired. Fat forms the basis of these mixtures, and gives them their hygienic effect, as it imparts fullness and softness to the skin. Try the following, the first of which quite closely resembles those on the market:

1.) Spermaceti.....	3 ounces.
White wax.....	3 ounces.
Nut oil.....	22 ounces.
Alcohol.....	1 ounce.
Water.....	4 ounces.
Chloroform.....	4 drops.
Oil rose geranium.....	30 drops.
Oil bergamot.....	6 drops.
Tincture alkanet, a sufficient quantity.	
2.) Oil sweet almond.....	8 fl. ounces.
White wax.....	1 ounce.
Spermaceti.....	1 ounce.
Rose water.....	5 ounces.
Borax, in fine powder.....	4 drams.

Melt the wax and spermaceti in the almond oil by the aid of heat, dissolve the borax in the rose water, and when the white wax, etc., is cooling, gradually add the solution of borax, beating or agitating with a wooden spatula until cold. This makes a cold cream base to which other ingredients may be added if desired. If other oils are required to perfume the mixture, mix them with the mass while agitating and nearly cool. If it is desired to add coloring, add it to the solution of borax in rose water. Tincture of benzoin added to the melted mass gives it an agreeable odor and helps materially to preserve it. This preparation may be colored by alkanet or carmine.

3.) Here is a formula in which lanolin is employed:

Soft paraffin.....	14 ounces.
Hard paraffin.....	1 ounce.
Lanolin.....	4 ounces.
Water.....	6 ounces.
Otto of rose.....	5 drops.
Vanillin.....	4 grains.
Alcohol.....	2 drams.

Melt the paraffins on a water bath, pour into a warm mortar, add the lanolin and with constant stirring, incorporate the water. When of the consistency of a thick cream, add the perfumes dissolved in the spirit. This preparation, like the preceding, may be tinted if desired.

5869. Lupulin.

(E. P. T.) The commercial value of lupulin, like every other commodity, depends upon the demand. In addition to its use in medicine, it is used in the fabrication of beer, though to what extent we are unable to learn, for when you ask its use, the brewer smiles and changes the subject. Lupulin is obtained by stripping off the bracts of hops, and shaking and

rubbing them; and then separating the powder by a sieve. The powder thus obtained ought to be washed by decantation in preparing it for the market, so as to remove from it the sand or earth with which it is always contaminated.

After washing, it should be dried and stored in well-closed bottles or containers. True lupulin thus prepared, appears as a bright yellow granular powder, having an agreeable odor of hops, and a bitter aromatic taste. It is gradually wetted by water, instantly in alcohol or ether, but not by potash or sulphuric acid. Ignited, it burns with a brilliant flame like lycopodium. When seen under the microscope, lupulin does not have the appearance of a powder, but is made up of little grains each having an oval or round form with an organized cellular body and a reticulated surface. In the fabrication of beer, hops not only give flavor and bitterness to it, but are beneficial, owing to their tannin, which acts directly as a clarifying agent by forming insoluble compounds with the albumenoids of the malt extract, and indirectly as a preservative, because these albumenoids, which the hop tannin in great part removes, are the most readily decomposable bodies existing in the wort, and, if left in solution, would render the beer liable to putrefactive fermentation.

The sample of lupulin which you send is of doubtful commercial value, as it is very dark colored and apparently contaminated with too much dirt and other foreign material. Lupulin is obtained on a commercial scale by placing a perforated floor or sieve near the floor of the kiln, and such portions of lupulin as are freed from the bracts by ordinary handling are preserved and treated in the manner above indicated, or sold in the state in which it is found in the receptacles at the bottom of the kilns. Pure lupulin ranges in value from \$3 to \$3.50 per pound, and dealers in brewers' supplies are the parties who handle it most extensively. If you can obtain lupulin in the manner indicated it might be well to submit samples to dealers, among whom we might mention P. Weidner, Gratiot and Rivard streets, Detroit, Mich.; P. Magnus & Son, Randolph street, Chicago, or Falk, Walmsler & Co., State street, of the same city.

5870. Colors for Confectionery.

(C. B. T.) asks about the toxicity of eosine and yellow aniline as used in coloring confectionery. Eosine, as usually prepared for the market, is obtained from the action of phthalic anhydride on phenol. When phthalic anhydride acts upon resorcin, in the presence of a dehydrating agent like sulphuric acid or stannic chloride, at a temperature of 120° C., there is formed a compound resorcinophthalin, best known as fluorescein. This fluorescein is the base for the manufacture of a series of permanent dyes which are obtained by substituting hydrogen by iodine, chlorine, bromine, etc., to a greater or less extent. By the action of bromine upon fluorescein, is formed tetrabrom-fluorescein, or eosine. The soluble eosine of commerce is the potassium salt of this compound. In a report upon dyes and coloring matters in food, some years ago in the *Pharm. Rund.*, Dr. Edemann gave expression to the following statements concerning the toxicity of aniline dyes, and eosine in particular. These colors produce pronounced poisonous effects only when they possess pro-

nounced acid properties. The acid properties become more pronounced the more bromine, chlorine and iodine and aniline they contain in place of hydrogen, and they are also dependent upon the nature of the substituting element. Fluorescein, when given internally, is absorbed by the blood and at once secreted in the urine. No change in temperature, nor any other symptoms, are developed. Eosine, however, when administered to rabbits, unites at once with the mucous lining of the stomach, the temperature is at first lowered, then, after the lapse of a few hours, it rises above the normal, while excretions by the bowels are suspended for several days. Normal temperature is not reached again until several days after the constipation has ceased. Repeated large doses, corresponding to about 6 grains for a grown person, produce death from inflammation of the stomach. The colors derived from anilines or from metallic sources employed in coloring confectionery, are open to suspicion and their use should be discouraged. Upon this subject the Candy Maker says: "For all purposes it is better for the candy maker to purchase his colors ready-made, as they cannot, on a small scale, be produced any cheaper than they can be bought of large makers. The colors should be vegetable, for it is no doubt true that mineral colors, merely from the fact of their being mineral, are harmful, though, in some cases not actually poisonous. Aniline colors, though very bright, should be carefully avoided. They are all dangerous, though their evil influences cannot be traced. The French government, which is careful of the health of its citizens and the reputation of its manufactured products, allows for the use of confectioners:

Blue—Prussian blue, ultramarine.

Red—Cochineal, carmine.

Yellow—Carmine lake, saffron, French berries, turmeric, fustic.

Green—A mixture of one of the yellows and one of the blues.

The ultramarine, we have no doubt, is hurtful, as it is an indigestible substance, lying inert in the stomach, but few French people indulge in prettily colored candies. These handsome goods are mainly intended for exportation. Of the vegetable colors in the market we believe those of the English makers to be quite innocent and brilliant enough for the candy maker's use. These colors can be purchased of most druggists and supply houses.

Formulas Wanted.

(C.G.) Magic Iron Tonic, a tonic beverage, nerve and brain food.

(W. H. B.) Landsfield, a face wash.

WINTER DRINKS.

5871. Beef Tea.	
New Eng. Dr.	
Cibil's extract of beef.....	8 ounces.
Water.....	8 ounces.
Fluid extract celery.....	1 ounce.
Use about a half ounce to a mug of hot water.	

5872. Beef Tea Extract.	
Extract beef.....	5 ounces.
Hot water.....	1 pint.
Tincture black pepper.....	1 ounce.
Mix beef in hot water, then add the tincture, use of this 2 drams or 2 teaspoonfuls to each cup, and fill with hot	

water. Salt to suit the taste. The tincture of black pepper is made as follows:

Whole black pepper,
crushed 3 ounces.
Alcohol 1 pint.

Strain and filter. The object of this method is to keep the tea clear of sediment.

5873. Beef and Celery.

Libbig's extract of beef, 8 ounces.
Hot water 1 pint.
Extract of celery 1 dram.
Caramel 1 dram.
Mix beef in hot water, add celery and color, use a shaker top in the bottle, as there is a sediment in the beef extract which necessitates shaking. In a six or seven ounce cup shake about 2 teaspoonfuls of the beef extract prepared as above, draw on this sufficient hot water, add salt to suit taste, stir with a spoon, shake a little white pepper on top.

5874. Flavoring Extract of Celery.

Celery seed 2 ounces.
Alcohol q. s.
Powder the celery seed in an iron mortar, and pack the mixture in a percolator prepared for percolation. Cover with alcohol (using about 20 fluid ounces), and when the percolate appears close the exit of the percolator and macerate for a period of twenty-four hours. Then percolate slowly until one pint of percolate is obtained. The strength may be increased or diminished to suit the taste of the operator, the quality desired governing in this direction.

5875. Chocolate.

Am. Dr.
Van Houten's soluble cocoa 3½ ounces.
Boiling water 2 pints.
Granulated sugar 40 ounces.
Extract vanilla 3 ounces.
Dissolve the cocoa in the boiling water, then add the sugar; when that is dissolved, strain and add the vanilla.

5876. Chocolate.

Confectioners' chocolate... ½ pound.
Hot water 2 quarts.
Condensed milk 1 can.
Granulated sugar 5 pounds.
Whites of two eggs.
Extract of vanilla 1 ounce.

Cut the chocolate finely into a porcelain-lined evaporating dish, and with the aid of heat and a pestle, reduce it to a smooth paste. Add the water (boiling hot), stirring constantly, then stir in the condensed milk and sugar. Allow to cool, skim off the cacao butter, particles of chocolate, etc., add the white of egg, previously beaten to a froth, and the vanilla, and strain through muslin.

5877. Chocolate.

New Eng. Dr.
Baker's fountain chocolate 1 pound.
Syrup 1 gallon.
Extract vanilla, enough.
Shave the chocolate into a gallon porcelain-lined evaporating dish and melt with a gentle heat, stirring with a thin-bladed spatula. When melted remove from the fire and add one ounce of cold water, mixing well. Add gradually one gallon of hot syrup and strain; flavor to suit. Use one ounce to a mug.

5878. Hot Egg Chocolate.

Break a fresh egg into a soda tumbler; add 1½ ounces chocolate syrup and 1

ounce cream; shake thoroughly, add hot soda slowly into the shaker, stirring meanwhile; strain carefully into mug, top off with whipped cream and serve.

5879. Hot Chocolate and Milk.

Chocolate syrup 1 ounce.
Hot milk 4 ounces.
Stir well, fill mug with hot soda and serve.

5880. Coffee.

Coffee, freshly ground
and roasted 8 ounces.
Sugar 24 ounces.
Best French brandy 1 ounce.
Boiling water 16 ounces.
Moisten the coffee with hot water and the brandy, pack firmly in a percolator, and pour on the boiling hot water, collect the first 16 ounces of the percolate and dissolve the sugar in the percolate.

5881. Coffee.

Mocha coffee (ground fine). 4 ounces.
Java coffee (ground fine). 4 ounces.
Granulated sugar 6 pounds.
Hot water q. s.
Percolate the coffee with hot water until the percolate measures 72 ounces. Dissolve the sugar in the percolate by agitation without heat and strain.

5882. Hot Egg Coffee.

Break a fresh egg into a soda tumbler; add 1 ounce coffee syrup; shake thoroughly, add hot milk slowly into the shaker, strain carefully into mug, top off with whipped cream and serve.

5883. Hot Clam Bouillon.

Clam juice 1 ounce.
Fill mug with hot soda, add pepper and salt, stir well and serve.

5884. Hot Clam Broth.

Clam juice 1½ ounces.
Hot milk 2 ounces.
Fill mug with hot soda, add a sprinkle of salt and white pepper, stir well and serve.

5885. Hot Clam Shnike.

Clam juice 2 ounces.
Hot milk 4 ounces.
Shake well, add pepper and salt, stir well and serve.

5886. Bouillon.

Extract beef 3 ounces.
Water 2 pints.
Corn starch 1½ ounces.
Salt 2 ounces.
Boil the cornstarch with the water until the starch is thoroughly cooked; then add the extract of beef dissolved in 8 ounces of hot water; add the salt, and when dissolved make the finished product measure 2½ pints. To draw this use about 1 ounce to a 6 ounce mug and flavor with a few drops of a flavoring essence composed of tincture of summer savory, 3 ounces, and tincture capsicum, 2 drams.

5887. Ginger.

Fluid extract of ginger... 2½ ounces.
Sugar 40 ounces.
Water to 2½ pints.
Take 10 ounces of the sugar and mix with the fluid extract of ginger; heat on the water bath until the alcohol is evaporated. Then mix with 20 ounces of water and shake till dissolved. Filter and add the balance of the water and the sugar. Dissolve by agitation.

5888. Hot Orange Phosphate.

Hot orange 1½ ounces.
Acid phosphates 3 dashes.
Fill mug with hot soda, stir well and serve.

5889. Thompson's Chloroform Lincture.

Chloroform 2 ounces.
Alcohol 2 ounces.
Ammonia water 2 ounces.
Spirit camphor 2 ounces.
Tincture of aconite 2 ounces.
Spirit nitrous ether, sufficient to make 16 ounces.

5890. Ewald's Antipyretic Mixture.

Salicylic acid 5.0 grams.
Sodium phosphate 13.0 grams.
Ammonia water 2.0 grams.
Distilled water 10.0 grams.
Glycerine 10.0 grams.

5891. Chronic Rheumatism.

Potassium iodide 2 drams.
Wine colchicum root 3 drams.
Fluid extract black cohosh ½ ounce.
Peppermint water enough to make 4 ounces.
Teaspoonful every 3 hours.

5892. Spiritus Antischladens.

Hager.
Morphine 0.5 grams.
Dissolve in:
Acetic acid 15 drops.
Alcohol 30 grams.
Then add:
Oil thyme 30.0 grams.
Chloroform 40.0 grams.
Cologne water 60.0 grams.
Use externally in neuralgia and rheumatism.

5893. Substitute for Garfield Tea.

Times and Register.
Senna leaves 25 parts.
Couch grass 25 parts.
Balmiony 1 part.

5894.

Dyspepsia.
Medical Record.
Tincture cascariella 2 drams.
Tincture cinnamon 2 drams.
Tincture gentian 2 drams.
Tincture colombo 2 drams.
Tincture rhubarb 2 drams.
Tincture nux vomica 1 dram.

5895. Syrup Partridge Berry Compound. (Mother's Cordia.)

Partridge-berry (herb)... 8 ounces.
Helonias 2 ounces.
Blue cohosh 2 ounces.
High cranberry bark... 2 ounces.
Water 6 pints.
Brandy 2 pints.
Sugar 16 ounces.

Macerate the herbs in the brandy for three days, express the tincture and reserve; place the herbs in the water and boil down to two and one-half pints. Strain, add the sugar, and when dissolved remove from the fire and after it has cooled add the reserved tincture.

SPONTANEOUS COMBUSTION OF

L'UPULIN. On a German steamer about to sail from Bremen a case of lupulin was discovered to be on fire, which was attributed to the fact that there was considerable moisture present, and this, in conjunction with the large quantity of material and length of storage, had generated heat through the slow oxidation of the oil until the ignition point was reached.



KINGS COUNTY BOARD OF PHARMACY.

1. W. M. DAVIS.
2. DONALD D. CAMERON.
3. E. H. BARTLEY.
4. W. M. HUTCHINSON.
5. L. T. PERKINS.

This board was organized in 1879, shortly after the passage of an act governing sales of drugs and poisons in Kings County, which includes, principally, the city of Brooklyn. The board consists of five members, two of whom are elected by the Kings County Pharmaceutical Society, two by the Kings County Medical Society, and the fifth by the other four members of the board, and he acts as the secretary. The length of service is three years, and three of the present members have served more than one term. The board meets for examinations the last Tuesday of each month at the Brooklyn College of Pharmacy. It aims to give a practical examination, and 91 per cent of the applicants are successful in passing. About 2,000 pharmacists have been registered and 800 assistant pharmacists. The board employs a qualified pharmacist to act as inspector, his duty being to discover violations of the law in the

employment of unlicensed clerks. The present membership of the board is:

1. W. M. Davis, president, has served five and a half years. He is a well known pharmacist of Brooklyn, conducting a prosperous business at Broadway and Halsey street. He has twice served as president of the Kings County Pharmaceutical Society, has been vice-president of the Brooklyn College of Pharmacy, and is at present one of the school trustees of Brooklyn.

2. Donald L. Cameron is a retail pharmacist at Reed avenue and Hancock street, and is now serving his second term on the board. He is an active member of the Kings County Pharmaceutical Society and the Brooklyn College of Pharmacy.

3. E. H. Bartley, M. D., is professor of chemistry at the Long Island Medical College, and occupies a similar chair and

acts as dean of the faculty in the Brooklyn College of Pharmacy. He was formerly president of the Brooklyn Board of Health. He is the author of several well known works on chemistry, is a thorough and experienced teacher and a liberal contributor to current professional literature. He enjoys a large and lucrative practice as a physician. He has served on the board of pharmacy about two and one-half years.

4. Wm. M. Hutchinson, M. D., has been a member of the board two and a half years. He is a practicing physician and is connected with the Long Island Medical College as instructor in chemistry.

5. L. T. Perkins, secretary, conducts a retail pharmacy, corner Greene avenue and Cumberland street, doing a large prescription business. He has served on the board about seven years, and one term as president of the Kings County Pharmaceutical Society.

NEWS COMMENT.

Commerford & Lipton have purchased the St. Clair drug store at MacMahon, W. Va.

Chas. E. Chagnon, Centerville, R. I., is the owner of a new store, the fixtures of which are now being put in by Chas. P. Whittle.

The drug store of J. W. McCoy, Wheeling, is closed. Mr. McCoy retires from the business.

The drug store of Hugh V. O'Donnell, Providence, R. I., is being fitted with new fixtures by Chas. P. Whittle.

Jas. A. Slattery will soon open a new store in Pawtucket, R. I. His fixtures will be of quartered sycamore and made from special design by Chas. P. Whittle.

The Atwood Cork Co. has been organized at Portland, Me., for the purpose of manufacturing corks and selling cork wood.

The drug house of Samuel S. Jones & Co., Wilkesbarre, Pa., has been closed by the sheriff. No statement of assets and liabilities has been made.

The California Botanical Medicine Co. is the name of a new corporation founded at Los Angeles, Cal., for the purpose of manufacturing medicines.

Sexauer Bros. have purchased the drug business of J. D. Van Law, Bellair, O. They were formerly engaged in the drug business at Sulphur Springs, O.

The Journal of the American Medical Association states that the first woman in the Republic to receive the degree of M. D. was Mrs. Elizabeth Blackwell.

Campbell & Sons, Fostoria, O., are successors to Campbell & Godfrey. B. B. Campbell, the junior member of the firm, is a graduate of the Illinois College of Pharmacy.

S. L. Brice, corner Jacob and 36th streets, Wheeling, W. Va., has disposed of his store to Harry C. Stewart. The store is being fitted with new fixtures of antique oak.

The factory of H. D. Thatcher Manufacturing Company, Potsdam, N. Y., suffered a loss of \$10,000 by fire December 5. The company manufactured butter coloring and certain druggists' sundries.

Fleishman & Co.'s department stores in Pittsburgh, Pa., were closed December 23, 1893, by the sheriff on executions aggregating \$100,000. They transacted a large cut rate patent medicine business.

Otto P. Kauffman has been appointed receiver for the Western Chemical Co., a corporation organized under the laws of New Jersey, and doing business in Cincinnati, O., for the manufacture of wood alcohol.

J. F. Marquardt & Son, Tiffin, O., are out with a very nicely worded address to their friends and customers, in which no commas, periods or other punctuation are to be found. This they do to show that there is no stop to the hard times with them.

A Vice-Suppressing Society has been organized in San Francisco, and it is making a determined effort to root out many evils. Druggists selling morphine and cocaine indiscriminately are among those against whom the efforts of the society are directed.

Chas. R. Goetze, Wheeling, Va., has sold his store at 117 Sixteenth street to W. H. Hague, and purchased the pharmacy of McLane Bros., corner Market and Twelfth streets. This store is one of the most modern in Wheeling. Mr. Hill,

who succeeds Mr. Goetze at the former place, has for a number of years been employed in the pharmacy of A. T. Young.

W. P. De Vries, Jr., secretary of the West Virginia Board of Pharmacy, is busy preparing the questions for the spring meeting of the board. He is also connected with the Wheeling Drug Co., which recently succeeded J. N. Smith & Co., wholesale druggists.

An Omaha doctor was recently fined \$10 for being absent from the court room when subpoenaed as a witness. The doctor pleaded in extenuation that he had been called to attend a patient who was very ill, and stated that under the same circumstances in the future he would pursue a similar course. The judge then raised the fine to \$25.

The Palace Pharmacy, one of the finest in the west, is the name of T. F. Blackmore's new store at Eddy, New Mexico. The fixtures are finished in Chinese glass enamel with gold trimmings. The Dawes Manufacturing Co. furnished the Paris Square recess shelware, the Meyer Bros. Drug Co. the stock, and the Dallas Show Case Co. the show cases. Mr. Blackmore will carry a full line of drugs and surgical supplies and transact a wholesale and retail business.

An International Congress of Industrial Chemists will be held in Brussels, August 4, 1894, under the patronage of the Belgian Government. The programme is divided into four sections; chemistry as applied to sugars, agriculture, foods and hygiene, and biology. The president of the committee on organization is Prof. E. Hanulise, Brussels, and the secretaries, F. Sachs, general secretary of the Belgian Association of Chemists, and Prof. H. Van Laer, of the Industrial School of Mines, Brussels.

Not long since, Lea & Perrin, the Worcestershire sauce concern, caused injunction proceedings to be issued against the Western Distilling Co., of St. Louis, for infringing upon its rights and counterfeiting its labels. John L. Venny, a grocer of St. Louis, after reading an account of these proceedings in the papers, thought it would be a good idea to counterfeite the cans and labels of a certain well-known baking powder. The scheme was, however, nipped in the bud, for when arrested Venny had just received his first consignment of labels, none of which he had been able to use.

The address of the president of the American Medical Association at its last meeting was received with particular favor. One pertinent portion of it was that relating to the manufacture and sale of secret and poisonous medicines. He believes the association owes to the people of this country that a strong effort be made to stop the sale of these goods. He instanced the fact that free trade in poisons is permitted only in this country, and that it is the only one in which are advertised in journals of all characters patent medicines of as varied characters. He believes that the sale of pharmaceutical preparations should be confined to the pharmaceutical fraternity, as it is all over Continental Europe, and that rigid laws and heavy penalties for violations of the laws should be enforced. Another suggestion was that each State should require the vendor of any secret remedy to submit his formula to a properly appointed board which should refuse or permit license to sell.

INTER-STATE RETAIL DRUGGISTS LEAGUE.

Boston, Mass., Dec. 26, 1893.

At the request of the New York City and other branches, a special convention of the Inter-State Retail Druggists' League, will be held on Tuesday, February 6, 1894, at Ionic Room, Terrace Garden, 147 East Fifty-eighth street, New York City, at 10 o'clock a. m., to devise measures for the advancement of the league and the cause for which it was instituted.

It is earnestly hoped that local organizations throughout the country which have not yet joined the league, will do so at once, so that the united wisdom assembled may tend to ameliorate existing conditions of trade among the retail fraternity. It costs but one dollar per year for each individual enrolled, and the possible and even probable results of such a pooling of interests may bring returns an hundred fold. Lack of complete organization has been the one cause of failure in past movements. With such organization we can accomplish all we desire—without it, absolutely nothing.

Hitherto it has been a difficult problem to solve the question of controlling the large army of retailers within one organization. The Inter-State League, being an aggregation of local associations or branches, sending delegates (one to a hundred) to a central or national body, seems to solve the difficulty and secure as perfect representation as though the local associations were assembled in full. Each delegation receives its instructions from its home association. Each local organization can, to a certain extent, take care of its own market, but the national feature is essential, so that one section may not pull down what another section has built up.

The "Detroit" plan adopted at the recent meeting of the N. W. D. A., had previously been recommended to manufacturers by the League, and it is the most easily carried out plan up to date. If followed out faithfully by all parties concerned, it must inevitably result advantageously to all. It is not necessary here to explain the plan in detail, as it has already been published in all the pharmaceutical journals. Suffice it here to say that the Detroit convention was noted as being the most harmonious ever held by the N. W. D. A., and the retailers present emphatically helped to make it so. The plan there adopted, to be a success, must have the active support of jobbers and retailers. The antagonism of either means failure.

I would advise that the retailers confer with their jobbers in friendly convention, each for the good of the other. The former can help the latter in organizing by instructing their traveling men to solicit petitions from the retail customers to the manufacturers, asking them to adopt their retail feature of the plan. These same commercial men can greatly aid us in forming local branches of the League. They make splendid canvassers, besides working in, the employers' interests by so doing. The "drummer" is commonly looked upon as a sound and level-headed adviser. The manufacturers, whose products are worth handling, are ready when the retailers say so. Judging from what has already been done in some sections, we can deluge them with petitions.

My dear retail friends, if it is worth while at all to regain some of our lost prestige in certain lines of goods, then it is worth some slight effort on your part. Come out of your shells! Put your shoulders to the wheel! If the measures suggested by earnest men who have given liberally of time, labor and money for years in your behalf are not to your liking, then by your united wisdom show them a better way. At all events sink individuality for the common good.

It is a good sign to note, where petitions are being extensively circulated in localities for the Detroit plan, that the daily papers, at the instigation of their best friends, the advertising cutters, have already begun to expose this imposition (?) on the "dear public." The advertising cutter is a keen business man. No one knows better than he what can be done by the united effort on the part of the legitimate trade. He feels that "there is something in the wind." He must "nlp it in the bud" by a liberal dose of "bluff." I often wonder if the aforesaid "dear public" ever stops to think how enormously it must pay for goods not on the advertised (full page) list, for certainly these sold-at-cost, draw-you-in "bait" cannot support the immense establishments.

Pay no attention to these assaults. Remember that "to the victor belong the spoils." Know your own strength, and knowing it, unite in any legitimate measure that promises success. Organize locally, and then—join the League.

Mr. Robert J. Frick, corner Sixth and Chestnut streets, Louisville, Ky., secretary of the League, will be glad to answer any questions you may be pleased to ask pertaining to his office, and it will make the treasurer, Mr. Frank H. Carter, Indianapolis, Ind., happy to receive your contributions. To those seeking information as to hotel accommodations or other matters relating to the meeting, our state executive, Mr. V. Kostka, 700 Ninth avenue, New York City, will be pleased to assist you, while the undersigned is ever at your service.

Respectfully yours,

HENRY CANNING,
President.

A statue to Chevreul, the great French chemist, has been inaugurated with ceremony at Angers.

Frank Tucker, of Roxbury, Mass., has put in some handsome new fixtures of quartered sycamore in colonial design and made by Whittle.

The Greenpoint Chemical Works has been incorporated at Brooklyn, and will manufacture iron mass for gas purification, and Prussian blue.

Geo. F. Tower, of the Goodwin Manufacturing Company, St. Louis, manufacturers of glycerine, etc., is dead. The business will be conducted as heretofore under the same firm name.

The recent death of Cooper Smith, of Cooper Smith & Co., manufacturers of chemicals, Philadelphia, Pa., does not affect the business arrangements of the firm, which will be conducted under the same name as heretofore.

A well, furnishing a pressure of 25 pounds dry carbonic acid, is a new industry at Saratoga Springs, N. Y. The Wilcox-Harvey Natural Carbonic Acid Company intend to compress this gas into liquid form and sell to the trade.

NEW YORK.

New York, December 23.—The approach of the new year has been anxiously awaited. A general improvement in business has already manifested itself, and the signs of the times point to greater activity than we have enjoyed in the past year. Most of the stores making a specialty of holiday goods fared unusually well, the depleted condition of their stocks bearing evidence to the heavy drain made upon them. An unusual amount of time and care seems to have been given to window displays, and some artistic results were obtained, which, no doubt, had considerable to do with the trade attracted. The continuance of the grip is also helping to increase business, especially in the prescription departments.

One of the saddest events of the year was the sudden and horrible death of Louis F. Hiltz, a retail pharmacist of Brooklyn. He was killed by a trolley car near the corner of Ralph avenue and Fulton street. Hiltz tried to jump on the front platform. One of his feet slipped, and before the motor man could put on the brakes, the man was pulled under the front wheels and crushed to death. As soon as the car could be stopped, the body was removed, it being literally cut to pieces. His death was a severe shock to his wife, who had just commenced to recover from a long run of sickness. The remains were interred at his former home, Norwalk, O. His store was located at Hopkins avenue, corner Herkimer street, where he had succeeded in building up a paying business. He was a graduate of the New York College of Pharmacy, '90, and valedictorian of his class. He was well known for his genial and affable manner, and had a host of friends, to whom his death was a great shock.

H. Fisher & Son have bought the store of James E. Wier at Bridgeport, Conn.

A. G. Hiller, 540 Tenth avenue, has sold out to M. Lehman, 35th street and Tenth avenue.

The store of James H. Jones, of Fordham, was slightly damaged by fire recently.

Mr. Pollock has bought the drug store located at Second avenue and Thirteenth street.

Chas. H. White, 511 Madison avenue, reports trade in his locality greatly improved.

O. F. Fuller, of the Fuller & Fuller Co., Chicago, has been paying a brief visit to this city.

Mr. Murray, of the Murray & Nickells Manufacturing Co., Chicago, was in town last week.

J. H. Feemster, manager of the glycerine department of Procter & Gamble, was in town recently.

Frank Gundlach, N. Y. C. P., '81, was married to Caroline Augusta Badeau, October 24th, 1893.

J. F. Brookfield and R. C. McCall, southern representatives of McKesson & Robbins, are in town.

J. F. Hartman has bought the store of L. Steinweldel, De Kalb avenue, near Stuyvesant, Brooklyn.

C. N. Crittenton, the founder of the C. N. Crittenton Co., has returned from an extended trip in Europe.

Adolph Ammon, class 1887, New York College of Pharmacy, was married November 22 to Miss M. Louise Fiegl.

The store of Hunter & Co., Tremont, has been sold to the former manager, and is now known as Crowell's pharmacy.

K. H. Westphal, formerly with M. H. Smith, 76th street and Lexington avenue, is enjoying a three months' vacation in Europe.

Richard D. Young has been appointed general manager of the New York branch of the Crown Perfumery Co., of London, England.

F. L. Feind, 115 Broome street, Newark, N. J., has sold his store to his son, John Feind, who has been managing it for some time.

Hazzard, Hazzard & Company have moved from their store on Fifth avenue to Broadway and 27th street, under the Victoria Hotel.

George Hecht, head clerk of Englehardt & Huber, Third avenue and Thirteenth street, is meeting with good success in the sale of his corn cure.

C. H. Duffy, N. Y. C. P., '79, has opened a new store at 1973 Second avenue. Mr. Duffy also received the degree of M. D. at the university last spring.

Otto Edler, formerly manager of the East New York Drug Company, Brooklyn, is now with Hardenberg & Angus, Columbus avenue and 75th street.

L. E. Findt, South Orange, N. J., is feeling jubilant over the completion of his new building, opposite his present location, which he will soon occupy.

Hugo Beckhs, formerly of Flushing and Bushwick avenue, Brooklyn, has bought the store of Richard Lucke, 81st street and Amsterdam avenue, New York.

C. F. Dyna, lately with J. Williams, corner Atlantic and New Jersey avenue, is now with John Sidley, Columbus avenue and 94th street, New York City.

W. J. Robinson, a graduate of the New York College of Pharmacy, has also graduated in medicine, and established himself in building up a lucrative practice.

Leonard J. Pastor, the young man recently arrested in Boston at the instigation of the Massachusetts Board of Pharmacy, was formerly a resident of Brooklyn.

Tomas & Co., former owners of the store at 94th street and Columbus avenue, now owned by John Sidley, will open a store at Fifth street and Columbus avenue.

J. L. Hopkins, of J. L. Hopkins & Co., has just returned from an extended western trip, and in spite of the dullness of the market has succeeded in doing a large business.

The owners of Paul Balluff's pharmacy will open a branch store at Columbus avenue and 84th street. It will be managed by Ernest F. Sickenberger, class 1882, N. Y. C. P.

Mr. Hammerschlag has sold his store, corner North Second street and Broadway, Brooklyn, and bought the store of Hugo Beckhs, corner Bushwick and Flushing avenues.

Henry Schimpf, professor of chemistry in the Brooklyn College of Pharmacy, having sold his drug store in New York City, has purchased a residence in Brooklyn near the college.

John Williams, formerly located on Ninth avenue, between 29th and 30th sts., New York City, has purchased the drug store corner of Atlantic and New Jersey avenues, Brooklyn, which Chas. F. Hanson had recently purchased for the East New York Drug Co.

Ed. F. Mallory, who for some time has represented Solon Palmer in the northwest, will, after January 1st, be the representative of Lazell, Dalley & Co., in Chicago.

J. K. Brater, proprietor of Brater's Asthma Cure, and formerly head clerk with C. F. Ford, 36th street and Seventh avenue, is now with Daggett & Hamdell, the Fifth avenue pharmacists.

Curt W. Knappe, '91 N. Y. C. P., and located at Carlsbad, N. J., has purchased another store at Iutherford, N. J., formerly owned by F. W. McGee & Co. Mr. Knappe will conduct both pharmacies.

A. J. Ituder, N. Y. C. P., '90, and Gilbert F. Ituder, '87, have purchased the store of Theodore Angelo, Fourth avenue and 31st street, and will conduct the same under the firm name of Ituder Bros.

Wm. M. Davis, Broadway and Halsey street, Brooklyn, president of the Kings County Board of Pharmacy, has entirely recovered from his recent illness and is attending to his numerous duties as usual.

Norbert Franck has been managing the retail department of E. Fougere & Co. during the illness of Leon Millie. Mr. Millie has completely recovered his health, and will soon be able to resume his old position.

The regular monthly meeting of the Kings County Pharmaceutical Society was held at the Brooklyn College of Pharmacy building, and some very interesting papers were read by Dr. E. H. Bartley and others.

W. C. Anderson, formerly professor of pharmacy at the Brooklyn College of Pharmacy, and now in the retail drug business at Binghamton, N. Y., paid a brief visit to Brooklyn and was royally welcomed by his many friends.

James Shillinglaw, N. Y. C. P., '87, and Henry McNulty, '91, have purchased one of the leading stores in Malone, New York, their former place of residence. Both were with P. B. Knappe & Sons, 362 Hudson street, New York City, for a number of years.

The store of H. M. Boardman, Fulton street, Brooklyn, has been entirely redecorated in bird's eye maple. The effect is novel as well as pleasing to the eye, and Manager N. Patterson is kept busy explaining that the knot holes which appear on the walls are the work of the grainers and the building is in no danger.

H. A. Bracklein, graduate N. Y. C. P., '90, and head clerk for M. Bretlenbach, Madison avenue and 57th street, has been visiting his old home in Kansas City, Mo. While there he was married to Miss Alma Hegg; he will be kept busy acknowledging congratulations from his many friends and classmates when he returns.

William H. Camp, a grandson of the late John McKesson, was instantly killed at the Morris Heights station of the New York Central R. R. He had alighted at the station and walked upon the south bound track just as an express train went thundering by. The engine struck him, crushing his skull, breaking his leg and killing him instantly. He was a student at Columbia College.

The meeting of the Alumni Association of the New York College of Pharmacy was held on Wednesday evening, December 13, at the college building. The report of the committee on final arrangements for the publication of the Alumni Journal was read and accepted. The editorial staff is as follows: Editor, A. G.

Harrison, M. D.; assistant editors, Frederick Hohenthal, Ph. G. and Henry Heller, Ph. G.; business managers, A. Henning and F. H. Caswell. The secretary was ordered to take action on the death of L. Hiltz, of Brooklyn.

The troubles in Brazil and the fitting out of the embryo Brazilian fleet here has not been without its benefits to the drug trade. Messrs. McKesson & Robbins received the contracts for fitting out the vessels with a complete floating drug store. Probably no regular man-of-war has so complete a stock as the Nichteroy and Republica. Messrs. Fraser & Co. have recently fitted out Vanderbilt's new yacht with a stock that contains a cure for every ill that human flesh is heir to. Medicines in tablet form are certainly a great boon to those aboard ship, as they are enabled to carry in a comparatively small space and with perfect safety a complete stock of the ordinary remedies.

The New York Society of Apothecaries on November 30th, Thanksgiving night, held its second annual complimentary reception at Fifth Avenue Hall. President Thos. E. Fraser presided with marked success. In a few well chosen words he welcomed all, and talking in a humorous vein said this was one of the first times a druggist gave everything away, and he presumed that, in consequence, the prices of drugs would be raised next day. Everything was free, plenty to eat and drink, and music and dancing. The committee of arrangements consisted of H. B. Myer, J. C. Bryant, J. A. Rosenheim. While the dancing was going on in the lower hall, a reception was held upstairs. Among the guests were T. Loud, of Merck & Co., Otway Latham and M. R. Mandelbaum, of Tilden & Co.

The police department is taking a census of the doctors practicing in New York City. This is at the request of the State Medical Society, as information has been received by that body that a large number of doctors who have no diplomas are practicing medicine here. In order to get a complete list, it was thought necessary to enlist the aid of the police department and they were instructed to copy the names and addresses from all the doctors' signs they came across. The work was completed in about two hours, and the list has been submitted to the State Medical Society, which will take steps to prosecute those who have been practicing illegally. It is estimated that there are between 3,500 and 4,000 physicians in the city.

L. Barker, a clerk formerly employed at Bongartz's Pharmacy, Ninth avenue and 55th street, was recently arrested for stealing from his employers. It seems he had been systematically robbing the store when employed there. He had slept in the store previous to his discharge and, after he left their employ, the loss of goods continued. A trap was laid for him, the night clerk remaining in the store secreted behind the counter, and when he unlocked the door and entered, and proceeded to help himself, he was caught by the clerk, but escaped down the back stairs. Being perfectly familiar with the place, he went through the celars of the block and succeeded in getting away, but was caught the next day at his own house. His confederate was also captured. His trial was to take place on Friday, December 8th, but the detective who arrested him was too ill to be present, so it was postponed.

BOSTON.

Boston, December 26.—Thanks to the vigilance of the State Board of Pharmacy, two important arrests have been made in this city. The prisoners are Eugene Levitan and Leonard J. Pastor. The charge against the men is forgery, but the crime of which they are guilty, by their own confession, is much worse. The men are Russians and have been in this country but a few years. Until the other day both were legally registered pharmacists in this city; but one of the men, Levitan, it is said, knows but little more about putting up prescriptions than a child. It appears that the certificate issued by the board in June last, and until recently in the possession of Levitan, was secured by means of a forgery. About last April Pastor came to this city from New York, and made the acquaintance of Levitan. As Pastor was badly off financially, and as Levitan was anxious to become a registered pharmacist, Pastor, who is an excellent mixer of drugs, offered to get a certificate for Levitan for the sum of fifty dollars. This was satisfactory, and on the 6th of last May Pastor filed an application to become a registered pharmacist and signed the name of Levitan to it. On June 1 he was ordered to appear before the board to be examined. When he was asked to sign his name to the papers he signed that of Levitan. During the examination Pastor showed himself extremely proficient in his knowledge of medicine, and passed a first-class examination. As a result the supposed Levitan was issued a certificate, which was forwarded to the real bearer of that name, who was then employed as a boy in the drug store of Mr. Kromberger, 100 Salem street. After getting his certificate he went to work as a registered pharmacist for a druggist at 29 Leverett street. He stayed there until a few days ago, when he purchased a store with another man at 83 Leverett street. Everything went smoothly until a few days ago, when the Board of Pharmacy received an anonymous letter saying that Eugene Levitan knew nothing at all about the business, and suggesting that the board must have been deceived in some way. An investigation disclosed that there was something wrong and a detective was called into the case. The latter found evidence that the certificate had been secured by Pastor, and then President Whitney remembered an incident which took place in last September. In that month a man who gave the name of Leonard J. Pastor, his right one, called at the office to be examined. At that time he did not have a mustache, but despite that fact the board thought that it had seen him before. He passed a good examination, and this time was granted a certificate in his own name. Having this in mind, it was thought to be advisable, the other day, to request Levitan to call at the office of the Pharmacy Board, and there he was totally unable to answer the questions which at one time it was thought he had passed. He was also unable to write his name the same as it was on the application blank of last May, and the detective then told him that there was reason to believe that he was an accessory to a forgery. Levitan admitted that he was, and told all. Pastor was also arrested, and admitted that he had secured the first certificate by means of forgery and misrepresentation. He

broke down shortly after his arrest and said that he was driven to do as he did, because he was unable to secure work. It appears that soon after he secured his own certificate Pastor joined hands with William E. Morgan, and the two started the Pharmaceutical Preparatory School at 157 Washington street, in room 4. It is said that the school has not been a success as yet, as but one of the pupils has applied for a certificate of the board, and failed to pass examination. Pastor is 24 years of age, and claims to have been in Boston since last April, when he came from Brooklyn, N. Y.

In the case of Robert H. Kimball vs. Harlow E. Woodward, the druggist, which was an action of tort to recover \$5,000, a verdict of \$913 was awarded. Mr. Kimball alleged that on May 5, 1890, he leased from George Johnson & Co. a part of the premises No. 100 Tremont street for two years and eleven months, for \$1,000 a year, and that in November, 1891, the lessors assigned their interest in the store to defendant, who, in February, 1892, evicted plaintiff, to the latter's great damage. This is the case where Mr. Woodward so placed a counter that it was practically impossible for anybody to deal at the counter where Mr. Kimball kept his goods, and finally the latter became tired of the battle and withdrew from the store.

James W. Tufts is building on Tufts street, near Chelsea and Bunker Hill streets, Charlestown, a model tenement house, patterned after the Peabody model dwellings in London. Special attention is to be paid to the sanitary arrangements; families will be supplied with food from a restaurant; there will be a club room for men, and a room where cooking and dressmaking will be taught to women; a day nursery for the use of tenants, bath rooms, baths and a laundry. Rents are to be low, the highest charge for a room to be but \$1.50 a week.

Since the mysterious death in a South Boston family, there have occurred in this city two cases of suicide wherein the same poison, cyanide of potassium, was employed; and yet the statute requires that whoever sells poisons, the cyanide of potassium being specifically named, without the written prescription of a physician, shall keep a record of such sale, with the name and residence of the person to whom it is delivered. This record is open to the inspection of the police authorities. The law imposes a penalty of not exceeding \$50 upon the purchaser who gives a false or fictitious name, but fear of this fine can have little weight with the person bent on suicide, and the record of sale which is open to police inspection, although it may assist in the detection of a murderer, is but a locking of the stable door after the horse is stolen, so far as suicides are concerned. It has been suggested that there should be adopted an amendment of the statute requiring proper identification of persons asking for poisonous drugs and preparations, with satisfactory reasons for purchasing. One thing is certain: It is practically impossible to buy the drug in any South Boston pharmacy.

A discharge in bankruptcy has been granted to the Balsam Fir Co.

Arthur Bowker, of Brookline, is going to move into a new drug store.

A new pharmacy has just been opened in Bath, Me., by J. E. Foster.

J. A. Slattery, of Milford, has gone to Pawtucket, R. I., to open a drug store.

G. E. Bonney & Co. have taken the drug store of Smith, who failed, in New Britain, Conn.

David F. Baxter, the Brookline druggist, has just bought of J. W. Tufts some apparatus for hot soda.

C. Arthur Peck, of Malden, and J. Fred Hood, of Turner's Falls, have filed a voluntary petition in insolvency.

A decision has just been given in favor of the Russia Cement Co. in a suit against the Le Page Co. for illegal use of a trademark.

Charles Knowles has been appointed assignee in the case of Harry G. Travis, druggist, 275 Hanover street, who has gone into insolvency.

A loss of more than \$3,000 was caused on the night of the 20th by a fire in the wholesale drug store of John W. Perkins & Co., Portland, Me.

In a list of subscribers to a fund for the unemployed of Boston there appears the name of John F. Low, of the Low Co., who has contributed \$50.

George H. Beckley, proprietor of the drug store in Putnam, Conn., formerly controlled by F. A. Libbey, has assigned to Judge Chesebrough, of Putnam.

The Maine Board of Pharmacy, which was to meet last week in Portland, did not come together, but will hold a session on the second Wednesday in February.

Gilman Bros., the druggists, are to have for neighbors the publishers and editors of the Traveler, who have for many years been located on State street.

E. I. Sawyer has just opened a prettily arranged drug store at 325 Washington street (Egleston Square), this city. It contains a fountain supplied by the Low Company.

General Appraiser Wilbur F. Lunt, of New York, has lately been at the Boston Custom House to settle some perplexing questions concerning the classification of drugs.

Bagley, the St. Johnsbury druggist, is proudly wearing an overcoat which he has had for a quarter of a century. It is still in good condition, the color being as fine as at the start.

A plumbago vein has been opened in the town of Hawley, on the land of Newell Dyer. A. C. Galbraith, a laborer, discovered the mineral. He secured the right to lease the land and work the mine.

The Boston Druggists' Association met and dined at Young's on the evening of the 19th. Frank A. Davidson presided, and Fred L. Carter, T. I. Delain, Jr., C. B. R. Hazeltine and G. W. Cheney were the special guests. After dinner Prof. J. A. Mortyney, humorist and mimic, furnished merriment for the gathering.

Dr. Lowe, a manufacturing druggist, who came east from California about three years ago to assist in managing the Arena magazine, has sold out his interest in the Traveler. He had bought stock in the magazine while on the Pacific coast, and came east to push his venture. He has done so to the financial advantage of the radical monthly. He sold his Traveler stock to one of his associates in the Arena office.

George T. Sears was injured in a peculiar way the other morning, in his drug store, corner of Hanover and Blackstone streets. The lid of the soda fountain fell

upon his left hand and several arteries were cut, the wound being so painful that he fainted. He was removed to the Emergency Hospital, had the hand dressed, and after a few hours was able to go home.

Alvin D. Puffer, the soda water apparatus manufacturer, the purchaser of Samuel M. Shapleigh's new brick and stone house, No. 94 Beacon street, near Audobon Circle, has bought the estate for his own occupancy and will move into his new home as soon as the interior decorators have finished their work. The price paid for the property is not made public, but it is understood that Mr. Shapleigh held the estate at \$35,000.

Woodward, the Horticultural Hall druggist, has had in his store what he calls a "Christmas scramble bag." There was everything in it from a pocket knife to a dictionary or a silver watch, and all one had to do was to buy a dollar's worth of holiday goods, when the privilege became his of thrusting a hand and arm into the bag and drawing therefrom a present. This came pretty near being a lottery, but the police appear to have known nothing about it.

One of the show windows of the Standard drug store, St. Johnsbury street, has lately presented a beautiful combination of colors. The background and draperies were a deep violet shade. The central figure was that of a flaxen-haired child dressed in material of the same color. All around and about this figure were fancy articles, perfumes, toilet waters, etc., in colors that harmonized with the violet draperies. The whole effect was very pleasing and the display attracted a great deal of attention.

Many of the hundreds of employees of James W. Tufts have voluntarily begun to contribute weekly sums ranging from five cents to twenty-five, to be put into a fund for the good of the unemployed. It is expected that this will enable a committee to support five families throughout the winter. The whole plan is simple, practical and highly commendable. But charity is not unexpected in such an establishment, where the men are treated so kindly. The firm is just now permitting its employees to buy for Christmas gifts silver-plated ware at enormous discounts. This is an annual privilege, of which the employees very generally avail themselves. They are allowed to bring their wives or other members of their families in to make selections, and the sales are said to be great.

Amos K. Tilden, the School street druggist, who was a Democratic candidate for the Common Council from ward 10 at the recent city election, is well known not only to the citizens of the ward, but of the entire city. He has been a member of the Democratic state central committee for many years, and a member of the ward 10 committee every year except three since 1875. He was one of the originators of the Young Men's Democratic Club in 1868, during the Seymour-Blair campaign. Mr. Tilden has nominated Hon. Hugh O'Brien for Mayor, seconded the nomination of Governor Russell at Worcester, has placed Sheriff O'Brien in nomination for years, nominated Hon. James Donovan for the Governor's Council, and seconded the nomination of the Hon. Patrick Maguire when he was placed in nomination for the same office.

PHILADELPHIA.

Philadelphia, Pa., December 23.—The retail druggists are doing a better prescription trade, owing to the prevalence of the grip, which has got a strong foothold here. While the disease itself is not necessarily fatal, it is responsible for a large number of deaths. Of the total deaths for the week of December 19, fourteen were from the grip, sixty-nine from inflammation of the lungs, and thirty-six from heart disease, believed to have been the result of the grip. The contagious diseases from which death resulted were diphtheria, twelve, scarlet fever, six and typhoid fever, ten.

The story published in the Era of the whisky trust and the means it employed to break contracts was commended by the leading druggists in this city. It is generally known that a number of them were tripped up, but they do not want their names known. A prominent wholesale druggist has, however, been made to suffer. He thought his six months were up, and when the whisky broker offered alcohol below the trust prices he ordered a lot. Previous to this he had forwarded his vouchers for rebates to the whisky trust, but, after waiting a month for his money, he was notified that he had broken the contract, as he had one more month to go before having his rebates forwarded. The article in the Era, however, has opened the eyes of the retail druggists, and the broker's offers are now being refused.

The Distillers' and Cattle Feeding Company has awakened to the fact that it has a big job on hand to fight the wholesale druggists. It has found that intimidation had no effect, and now it is going around with a bottle of soothing syrup administering homeopathic doses to its patrons. The prescription offered is in the shape of a circular presenting the advantages of patrons becoming stockholders.

A prominent druggist referred to the meagre numbers that are daily at the drug exchange and attributed it to the telephone. Years before this instrument was in use it was necessary for a drug man to go to the exchange during exchange hours to transact his business. Here all contracts were made and signed, and there were always representatives of the drug houses on hand. Now it is different. Ten members is a large number and often five is considered quite a gathering. The cause of this is the telephone, the druggist not leaving his store to order goods.

The manufacturers of perfumes are up in arms against the portion of the Wilson bill which affects their business. On Wednesday, December 20, a meeting of the manufacturers of perfumery was held in the office of Messrs. Colgate & Co., 55 John street, New York, at which representatives from all sections of the eastern states were present. Philadelphia was there and entered a protest to the change in the tariff.

The trade is interested in the proposed tax on proprietary medicines and has given careful attention to the letter from George A. Kelly, chairman of the committee on legislation of the N. W. D. A., regarding the matter. (See letter on another page.—Ed.) Prior to receiving this letter the matter had been brought to the attention of the committee on legislation of the Philadelphia

Drug Exchange. President Lapp took hold of the matter as soon as he heard of it, and he suggested a consultation; a number of the members of the Drug Exchange were gotten together and debated whether it would be advisable for the exchange as a body to protest against the bill. But there are only a few members who are manufacturers of proprietary goods, and, after a long discussion, it was deemed advisable to have nothing to do with the subject, as the matter was to be taken in hand by the N. W. D. A.

The druggists of this city are lying awake at night trying to devise plans to defeat any hostile legislation that may be brought up at Washington. There is considerable lobbying being done to keep the duty on quinine, but it is generally thought nothing will be accomplished, as an audience with the committee is very hard to obtain. A few days ago a committee, representing the manufacturers of powdered drugs, went to Washington to protest against the admission of powdered drugs free of duty. The committee, as a body, could not be seen, and only one or two of the members of the committee deigned to give the visitors a hearing. It was with great difficulty that any information could be secured. There is a representative of the drug business in Washington who is on the lookout for any measure that may prove detrimental to the interests of the trade, but it is almost impossible to get printed copies of the bills.

During the last week there has been quite a revival in the wholesale drug trade. Some of the principal houses are as busy as they were last year. Smith, Kline & French Company are doing the best and largest business in their experience. The revival was sudden and it is thought that it will die out as soon as the grip is mastered. Schandell & Lind report themselves very well pleased with their business for 1893, when everything is taken into consideration. French, Cave & Co. are another lucky house. They report an excellent fall trade. Their business in pharmaceutical specialties has increased in proportion with their other lines, and during the coming year they expect still more.

C. F. Cartwright has sold his drug store at Twelfth and Jefferson to Sydney L. Knissell. The latter was for many years in the employ of Bullock & Crenshaw.

Some sponges are coming to the Philadelphia market, but prices are getting higher with the demand on the increase. Other invoices are expected before the end of the year.

J. M. Maris & Co. are fitting up the drug store at Hazelton, Pa., for H. L. Smith. The new store is to be known and operated under the name of the Diamond Drug Company.

P. C. Brady, assistant bookkeeper in the city department of Smith, Kline & French Company, died on December 15 from heart disease. Mr. Brady was well known in the drug trade. He was with John M. Maris for over twenty-one years. He was well informed and had a host of acquaintances.

William R. Warner & Co. have felt the effect of the grip and their business is larger now than it has been for some time. This firm has one of the best localities in the city for its factory. It is unlike all others, as, in connection with the departments for the manufacture of

pharmaceuticals there is a large hall which can be used for concerts, church fairs and other entertainments. It has a seating capacity of 1,000 and is illuminated by electric light and gas.

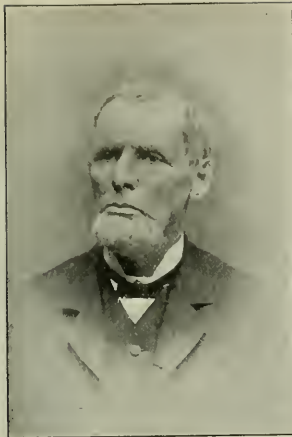
About 150 members of the senior class, in charge of Prof. Remington and Assistant Prof. Ryan, on December 21 made the annual excursion to New York and Brooklyn for the purpose of inspecting chemical and pharmaceutical manufacturing plants. This is one of the big events of the senior year and those who enjoy it have a day replete with instruction and introduction to ways and means of doing things, getting information to be had in no other way. Dr. E. R. Squibb's laboratories, with their splendidly equipped appliances for all sorts of pharmaceutical work, were the center of interest, and there the most time was spent. The works of the Springer Torsion Balance Co. were also visited.

The results of the two preliminary junior class examinations, which took place during November and December, were announced on the evening of December 22, and were satisfactory to most of the 300 students who came up for the contest. Those who passed the examinations are now eligible for the final junior trial in March, and those who were not as successful can only take a modified examination, or none at all, and re-enter the junior class of next year. This plan of determining men's fitness for obtaining a scientific education has been found to be very satisfactory. Here a man shows in the first few months whether he is sufficiently advanced either in general education or absorptive faculty to proceed to more serious work.

The third social meeting of the Alumni Association of the College of Pharmacy was held on Tuesday afternoon, December 12, "Japan, France of the East" was the subject of a lecture by the Rev. John B. Gough Pidge, who recently made a seven months' tour around the world. The lecture was illustrated by a large number of beautiful pictures projected on a screen by an oxy-hydrogen light. The committee in charge of the meeting was composed of Dr. C. B. Lowe, Dr. A. W. Miller, William A. Bullock, Joseph W. England, and Dr. J. L. D. Morrison. The pharmaceutical meeting was held on the following Tuesday and a programme of much practical interest was presented. Henry Kraemer, Ph. G., read a paper entitled "The Columbian Exposition from a Botanical Standpoint." "Forestry at the Columbian Exposition" was a subject handled by Joseph Crawford, Ph. G., and a number of specimens of woods were shown. George M. Beringer, Ph. G., presented some "Notes on Resin Podo-phyllum" which were gathered in pharmaceutical manipulation. Alfred Leggos spoke of a new kind of tablet machine which he believed answered a good purpose. W. B. Thompson exhibited specimens of sugar of milk of unusually fine quality which he said had been made by the American Lactose Company, at Plainfield, N. J. The committee, who worked hard to secure the enjoyable programme, was formed of Prof. Henry Trimble, chairman; Messrs. Wallace Proctor, Dr. Clement E. Lowe, Joseph W. England and William L. Cliffe.

The drug clerks at Skowhegan, Me., have formed a society for study in matters pertaining to pharmacy.

DETROIT.



C. P. PARKILL.

Dr. C. P. Parkill, of Owosso, Mich., quietly sank to rest in his last, long sleep, on November 28. The drug trade of Michigan, in his death, loses one of its best representatives, and the community in which he lived an honored and respected citizen. He was a man whom it was an honor to know, and whose friendship was to be closely guarded, for he was loyal, true, and faithful, in principle and practice.

Dr. Parkill was born in Lewiston, N. Y., December 20, 1821, and thus was nearly 72 years of age at his death. At the age of 19, in 1840, he came to Michigan, settling at Owosso. Here, a varied experience in clerking, teaching school, and in the composing room of a country newspaper, culminated in a determination to study medicine. Preliminary study with Dr. J. B. Barnes was followed by attendance at Willoughby College, Ohio, from which he graduated in 1846. Then followed twenty years of experience as a country physician, at Bennington, a life than which there are few harder, combining heavy responsibility with arduous physical and mental exertion. In 1865 he returned to Owosso and established the drug business which has long been conducted under the firm name of Parkill & Son. In Owosso his character commanded respect, his scientific and literary attainments gave him power of thought and force of speech, and his geniality and large heartedness converted all acquaintances into friends. A leading attribute of his nature was a steadfastness, almost stubbornness, which he always exerted in support of the right. He was an ardent worker in the cause of temperance, and in politics he was the organizer of the Republican party in his district. In 1856 he served in the State Legislature, and took active part in the great conflict which resulted in emancipation of the slave.

In pharmaceutical affairs he always did all in his power to make and keep the profession what it should be. He was a charter member of the Michigan State Pharmaceutical Association, and was a regular attendant at its earlier

meetings; later his infirmities prevented his active participation. He was always a staunch supporter of the pharmacy law.

Dr. Parkill was a widely informed man, and possessed deep resources in an intellectual and literary sense. On all questions of current interest his extensive reading and careful habits of thought enabled him to arrive at an impartial, unbiased judgment, and his opinions were sought and valued. In religious matters he was always faithful, charitable, not bigoted, a consistent servant of his Master.

Dr. Parkill was married in 1848 to Miss Adelaide Howe, who joined her life with his in devotion to the higher interests and welfare of their fellows. She survives him, with her daughter and son. The latter, Stanley E. Parkill, has long been associated with his father in the drug business, which he will continue to conduct, together with his duties as secretary of the State Board of Pharmacy.

Christmas Day was one of considerable importance to some of Detroit's druggists, but perhaps none fared or were remembered better than was druggist F. W. R. Perry, who got up Christmas morning to find an appointment as a member of the Michigan Board of Pharmacy in his stocking. The vacancy which he was appointed to fill was caused by the retirement of Ald. James Vernor, whose term of office as a member of the board expired December 31. The appointment has been a question of considerable interest to the drug trade of Detroit, inasmuch as the precedent had been established that the appointee should be a resident of this section of the state. Mr. Vernor, the retiring member, has been a member of the board since its organization, and to his executive ability is due in no small sense its present high standing. Mr. Perry, the new member of the board, is comparatively young in years, but he is not young in the drug business. By education and experience he is well qualified for the position to which he has been appointed, and his many friends congratulate him upon his preferment.

A new drug store has been opened at Fennville by Clarence N. Memold.

Farrand, Williams & Clark presented \$5 to each of their employes as a Christmas present.

The drug store of J. J. Orr, Tecumseh, was damaged by fire December 12. Insurance, \$2,000.

Judge and Whitmarsh, druggists, 749 Grand River avenue, are succeeded by R. H. Whitmarsh.

The Chapotin and Gustin Drug Company is the name of a new drug firm doing business at 245 Woodward avenue.

S. P. Whitmarsh, a Palmyra druggist and well-known member of the Michigan Pharmaceutical Association, was a caller at the Era office a few days ago.

E. P. McCullough, representing Colgate & Co., New York, was a recent caller at the Era office. He was on his way to Washington, D. C., where he will spend the holidays.

J. O. Schlotterbeck, instructor in pharmacognosy and botany at the Michigan University, Ann Arbor, called on the Era December 23. He was on his way to Cincinnati, where he will spend the holidays.

Owen R. Ellis, superintendent of the Acme White Lead and Color Works, was given a handsome easy chair, as a Christmas present, by the workmen in his charge.

H. N. Paekert, a graduate of the Toronto College of Pharmacy, in the employ of P. F. Nasmyth, the Baker street pharmacist, was married recently to Miss Olga Niemler, of Neustadt, Ont.

S. W. King, a druggist of Muskegon, was arrested by United States authorities December 22. It is claimed that he misused the mails by sending a dunning letter on a postal card to a customer.

T. O. Lumsden, one of the Health Board inspectors of this city, has invented a pail for carrying sulphur and heating water at the same time, to be used under the new system of disinfection.

H. O. Fleming, brother of Mayor Fleming, Windsor, opened a new store in that city Christmas day. The fixtures are of the latest design and reflect great credit upon the exquisite taste displayed in their selection by the owner.

Walter Crawford, a former member of the firm of Johnson & Crawford, pharmacists, Milford, is now a successful real estate dealer in this city. Mr. Crawford is one of the best known business men in Oakland County.

J. E. Jessop has accepted a position as bookkeeper with Hazeltine & Perkins Drug Company, Grand Rapids. His former employers presented him with a check for \$250 in token of their appreciation of his faithful service to them.

The handsome fountain manufactured and exhibited by the Low Art Tile Company at the World's Fair, has recently been purchased and placed in Sanders' confectionery store, corner Michigan and Woodward avenues. It is a beauty and elicits many favorable comments.

The Grand Rapids Pharmaceutical Society, at its annual meeting, held December 12, elected the following officers for the ensuing year: President, W. K. Schmidt; vice-president, T. G. Aldworth; secretary and treasurer, B. Schrouder; trustees, F. J. Wurzburg, T. G. Aldworth, Henry Riechel and R. A. McWilliams.

A story is told on W. F. Griffith, a well-known traveler in the employ of Farrand, Williams & Clark. Some time ago, while at Clare, he ran up against a raffle in which a horse, buggy and harness was being raffled for the benefit of a sick man. He went on his way, thinking no more about the matter. While at Howell, some time later, he received a letter stating that the horse and outfit were his property by virtue of the drawing. He at once telegraphed to the parties to sell the rig and give one-half the proceeds to the sick man and send the balance to him.

Considerable interest has been exhibited in a controversy between Jacob Jesson, of Muskegon, and James Vernor, of this city, concerning the recent ruling made by the State Board of Pharmacy in requesting all candidates coming up for examination to supplement the statements made in their application for examination by an affidavit from some registered pharmacist in good standing, setting forth that the candidate has had three years' practical experience. Mr. Vernor, of course, defends the action of the board, while Mr. Jesson is very decidedly opposed to it.

CHICAGO.

Chicago, December 25. A few days previous to the recent municipal election held in this city, a manifesto signed by Albert E. Ebert was circulated among members of the drug trade, asking them to use their influence against the election of the candidate for mayor upon the Democratic ticket, John P. Hopkins, on the ground that he had been prominently connected with the "cut-rate department stores" at Pullman and Kensington. Mr. Hopkins was elected, however, by a small majority.

O. F. Fuller, of the Fuller & Fuller Co., made a business trip to New York last month.

The Japanese Remedy Co., 153 So. Western avenue, changes its name to the Jas. H. Johnson Co.

E. T. Richards, successor to the La Fayette pharmacy, No. 143 35th street, has removed to 111 West Madison street.

The regular meeting of the Section of Chemistry, Chicago Academy of Sciences, was held December 19 in room 48, Athenaeum building.

Pingree & Treakle, the patent medicine manufacturers, have dissolved partnership, and the business is now conducted by Dr. M. G. Pingree, Suite A, No. 241 Wabash avenue.

Giles Lewis, of the firm of Robert Stevenson & Co., was one of the witnesses in the Cronin murder case. Mr. Lewis had no direct connection with the case, but simply testified as to the death of his brother, who was Dr. Cronin's dentist.

The grip must have struck Chicago pretty hard, if one may thus conclude from the theft of two cases containing over 25,000 cough lozenges from a drug in front of the Tremont House drug store on December 13. George P. Martin, the owner, reported the loss to the police.

The condition of trade just at present was aptly described by a reporter on one of the daily papers. At the banks he found business apathetic, in the stores slack, and at the saloons "on the hog train;" druggists reported slow trade; when a customer came in with a prescription, he would ask "How much?" and, if the price were not low enough, he would walk out and the prescription with him.

Edward Haller, of the John Block Drug Co., suffered a very painful and serious accident a few days ago. Upon alighting from a street car, the muscles of the calf of the leg were torn apart, the smaller from the larger, and it is predicted this leg will always be stiff. Mr. Haller holds an accident policy, but naturally feels that \$5 or \$50 weekly indemnity is meager consolation for enforced neglect of business duties and the probability of a stiff limb.

Fred M. Schmidt, who may be said to be "high up" in pharmaceutical affairs, inasmuch as he owns the prescription drug store on the tenth floor of the Schiller building has, as the Era intimated, been appointed a member of the Illinois State Board of Pharmacy, a good appointment and one that gives very general satisfaction. He has some sound ideas on the professional aspect of pharmacy.

There were plenty of wholesale druggists in town a couple of weeks since. They came from all sections of the country between the Monongahela and the Mississippi to attend a meeting of job-

bers to discuss trade questions. The Detroit plan for regulating the patent medicine traffic was liberally discussed by the fifty or more present, and a strong sentiment in its favor was manifested. C. P. Walbridge, of the St. Louis firm, Merrill Drug Co., and mayor of that city, presided.

Jonas & Christensen, druggists at 84 West Madison street, have been treating their store to a new coat of paint, decorating the ceiling and furnishing up generally. F. E. Leake is a newly engaged assistant. All three gentlemen are graduates in the class of '93, Illinois College of Pharmacy. Mr. Christensen was married recently at Racine, Wis., and finding this example contagious, and evidently believing still another partner was needed, Mr. Jonas tied himself toledward just before Christmas, and on December 23 was married to Miss Maria Crawford, of that city. This firm is certainly enterprising in more ways than one.

PEORIA, ILL.

Holiday business has been very quiet this year. Merchants have been somewhat averse to making large displays of Christmas goods, and consequently their supply of stock for the holiday trade has been very limited. The druggist has had to content himself in expending his energies against the cut-rate business, which, with one exception, has been nearly annihilated in this city. That exception has been in the sale of hot water bottles and fountain syringes, and it has made the druggist feel very sore. Goods that once netted him a fair profit in winter, as these have done, are now cut so close that the best of stoppers will not stop them.

The results of treatment practiced by the numerous bichloride institutes in the country crop out occasionally in an unsatisfactory way. In this city a number of patients who had taken the treatment died and a number have been declared insane. The remedy used is not the harmless gold salt, but is rather a solution containing strong alkaloids, such as strychnine, atropine, apomorphine and other concoctions of a fanciful nature. The indiscriminate use of these remedies by broken-down physicians who have failed to make a success in their profession through an inexcusable amount of laziness and hatred of study, cannot be expected to terminate in any other way.

Druggists in the future will have to be more careful in the way they allow their clerks to handle cigars. The law requires the salesman to hand out the box whenever a sale is made, the customer choosing or making his own selection. The necessity of observing the law was illustrated in this city recently, where a certain firm had in stock a box which contained eight cigars of different brands. A deputy of the revenue department noticed and confiscated them. The members of the firm explained that in handing out the cigars and returning those not sold some of them had dropped into the wrong box. No arrests have yet been made.

Retail druggists in this city are very much interested in a suit to test the validity of a city ordinance which requires every druggist doing business to pay a fee of \$25. In refusing to pay this fee the city officials have selected Mr. Sam Coffinberry as the target of their malice, and the rest of the druggists await the outcome of the trial.

ST. LOUIS.

St. Louis December 23.—The holiday trade in this city was all that could be expected, and more if anything. Both wholesale and retail houses have held their own remarkably well, and future prospects are refreshing. A marked improvement in the drug trade could be noticed during the holidays and a spirit of jollity has pervaded pharmaceutical circles. The proposed tariff revision, which includes many important staples in the drug line, has attracted considerable interest, and much speculation is being indulged in relative to the effect the passage of the Wilson bill will have on the drug trade.

A large audience attended the third monthly scientific meeting of the Alumni Association of the St. Louis College of Pharmacy, Tuesday evening, December 19, at the college building. The eloquent lecture on "World's Formation," delivered by Otto A. Wall, professor of materia medica and pharmacognosy, was listened to with a polite attentiveness. The lecture was something of an oratorical treat, and the audience showed its appreciation of the many novel ideas presented by applauding generously. Other lectures will follow in the near future.

At a caucus held by the members of the Western Commercial Travelers' Association at the Lindell Hotel a few days since, John S. Moffitt, of the Moffitt-Weat Drug Company, was selected as the first vice-president on the caucus ticket for officers. Mr. Moffitt seemed to be the strongest candidate for president, and might have secured the nomination but for the fact that a previous caucus had been held by "a select few," who fixed upon George S. McGrew for the position and carried him through successfully. An opposition ticket has also been placed in the field, and the race for offices promises to be interesting as well as spirited. The annual meeting of the association will be held December 26 at the Lindell Hotel.

The regular monthly meeting of the St. Louis Paint, Oil and Drug Club was held at the Mercantile Club house December 14, a week ahead of the usual time, owing to the fact that the New England Society had previously engaged the club house for December 21. After a bountiful supper, President D. P. Daugherty, of the Daugherty-Crouch Drug Company, called the meeting to order. In behalf of the delegates to the recent convention of the National Association at Pittsburg, Mr. Walker Evans submitted an interesting statement of the important improvements that the association is trying to accomplish in government and business affairs. A communication was read by Secretary Melvin H. Stearns suggesting that paint and oil clubs of the United States employ chemists for the purpose of detecting adulterations in linseed oil. Mr. N. O. Nelson followed with an eloquent address to the club on the co-operative and profit-sharing plan. The club will hold its next meeting on the third Thursday in January.

Sol. G. Boehm, the well known druggist of No. 800 Morgan street, was tendered a very pleasant serenade by several hundred friends a few nights since in honor of his appointment as Justice of the Peace of the Sixth District. He led the party to Wenzell's hall, not far distant, where a lunch was served.

Speeches were made by Judge Boehm, Recorder Wm. Hobbs, ex-Councilman Benstick, Dr. G. J. Hermann, J. J. Curley, David Stahl and others. Mr. Boehm is making an enviable record as Justice of the Peace.

Thos. Knoebel, the well known pharmacist of East St. Louis, has been selected as a candidate for the Illinois Board of Pharmacy from the Twenty-sixth District.

The suit for divorce filed by Mrs. Mae Schaefer against her husband, Henry J. Schaefer, druggist, No. 1703 Chouteau avenue, has been thrown out of court and the couple will try it again.

Hon. Cyrus P. Walbridge, Mayor of the City of St. Louis, and president of the Merrell Drug Company, recently visited Chicago to preside at a meeting of the Western Wholesale Associated Druggists.

The talk by the retail druggists of establishing a co-operative jobbing house in this city, as a result of the action of the wholesalers a short time ago, has subsided and the pipe of peace is being smoked by all.

The Lambert Pharmaceutical, of this city, are being kept busy prosecuting imitators of their product, Listerine.

Emil Whitney, formerly connected with Fernow's establishment, has opened an office in the new Union Trust building, Seventh and Olive streets, where prescriptions only will be dispensed.

Several simple-minded persons have recently asserted that the drug stores which have been made branch offices of the Laclede Gas Light Company, have been charging a commission on bills paid. In this way, it was said, the people were being swindled out of about \$30,000 annually. The charge is indignantly denied.

PITTSBURGH.

Pittsburg, December 26.—Pittsburg and Allegheny druggists, notwithstanding the panic, made several efforts to prepare holiday displays, and their windows show the effect of careful work. Particular pains are shown in the arrangement of lines of soaps, perfumes, cigars and various toilet preparations. The windows of Louis Emanuel, Eggers & Son, Greenfield's Duquesne Pharmacy, Pittsburg, were specially worthy of mention. Kaercher, Federal street, Allegheny, presents to view a revolving Christmas tree five feet in height. Trade continues dull, and collections are extremely difficult.

The Pittsburg free dispensary is playing an important part in the relief of suffering which exists this year to an extent never before known in this vicinity. At least 6,000 families are destitute and require assistance to keep off absolute starvation. Patients are prescribed for by the board of charities physician and medicine is then furnished at the dispensary.

The Homeopathic hospital has just gone through a dire affliction in the shape of a small-pox quarantine. The disease developed into serious proportions and seventy-five patients, under treatment for various ailments were penned up by the state and city boards of health. Policeman Thomas, of Jeannette, a flourishing town near Pittsburg, was released from the hospital, but soon was stricken with small-pox and died. Simultaneously with his illness several cases were discovered in Pittsburg. This state of affairs resulted in the instant closing of the hos-

pital, and the patients have just been released after more than a month's imprisonment.

Dr. D. R. Brent, in discussing the evolution of the drug store and the preparation of triturates, declares that, in his opinion, it is a question whether this latest development has come to stay.

A child of Chas. Beck, a Sharpsburg druggist, accidentally took poison a week ago, and its life was saved only by hard work on the part of the physician. The child was playing in the store, and, it is supposed, got hold of some drug, just what is not known.

The monks of St. Vincent's abbey, near Latrobe, are anxious to get a change, or at least a special rendering of the internal revenue laws to cover their case. They brew beer for their own consumption, but are placed liable to tax owing to the fact that the building in which the brewing is done is separate from that containing their dining and living rooms. They have appealed to congress for relief.

Considerable discussion among local physicians has been aroused on the subject of the science of being left-handed, and the phenomenon of mirror-writing. Dr. Winslow, who is ambidextrous, declares that mirror-writing is simply a symptom of the cerebral talent, and indicates that the person possessing it has double the cerebral functions of an ordinary man.

INDIANAPOLIS.

Indianapolis, December 23.—Councilman Colter says he will reintroduce the city ordinance requiring drug stores that retail liquor to pay equal license with the saloons, \$250 a year. He says that leading druggists who do not retail liquor went to the Saloonkeepers' League when the latter were endeavoring to get the Grossert bill through the legislature, and said that the sale of liquor was demoralizing the drug business. They also appeared before the legislative committee on temperance and urged it to report favorably on the bill, which is identical with the Colter ordinance defeated in the city council two or three weeks ago. The druggists referred to acknowledge the corn, but say that the one was a state law and the other is a city law, unfair and not able to stand the tests of courts. Paying a city license also means the paying of government and county licenses and the total would be \$375 a year. Druggists now pay a tax for the privilege of selling, but cannot sell more than four and one-half gallons of alcohol at one time without taking out also a wholesaler's license. It is said that, if the city should pass the ordinance and assess the druggists \$250 the state law would not then permit the druggists to retail liquor to be drunk upon the premises, but would even revoke the licenses. Under the state law the city may prosecute for violation, or assess a tax, but cannot issue licenses of its own authority. Controller Trusler, the financial head of the city, wants the ordinance passed, and says, "Men who want to drink whiskey should get it at saloons, and drug stores should not be made tippie shops."

There have been only four attempts at morphine suicide during the past two weeks in this city.

A. C. Koehne, formerly of the Stewart drug house, now market-master, is favor-

ably mentioned as a candidate for county recorder on the Republican ticket.

George D. Price, a young druggist of Seymour, has received the appointment of postmaster of that town.

Thieves made a raid on L. V. Conwell's and Canady's drug stores at Van Buren on the night of the 18th inst., getting goods to the amount of about \$50.

The commercial travelers have organized a relief association, and the drug men are represented by M. P. Lynch, T. J. Cook, H. D. Porterfield and S. A. Fisher.

An employe of the Schmidt brewery in this city was seriously injured on the 8th inst. by a terrific explosion of gas which followed the lighting of a match in one of the dark beer cellars. He was inspecting an empty cask at the time.

Chemist Eisenbeiss asks the county for \$1,250 for five analyses of the stomach contents of the members of the Koerster family, for whose murder by poison Anna Wagner was tried and acquitted. Drs. Latz and Geis also ask \$50 for analyzing "Rough on Rats."

Druggist Geo. W. Sloan, whose interest in the public affairs of this city has been previously noted in these columns, has a new scheme—to have electricity and trolley-wire excursion boats on the canal next summer to convey Indianapolis to the summer resort of Broad Ripple.

Hiram Lindley, a lifetime druggist, died at Bloomington on the 9th inst. He had been in the business there nineteen years. He was seventy years of age and left a widow and four children. He was one of the pioneer settlers, was prominent in the Friends' Church and in social and public life, and was of kindly impulses and sterling character—an honor to his profession.

John W. Stokes is a clerk in Sloan's drug store. Joseph Deitch, an old man, with whom Mrs. Stokes had formerly lived, died two weeks ago, and in an old safe in his bedroom was found \$134,000 in gold and notes. In the will \$5,000 was bequeathed to Mrs. Stokes, but the codicil cut her off. Supposed that the old man was hurt at his favorite's leaving him and marrying.

Councilman A. G. Eilar, formerly a prominent druggist of New Castle, was arrested on the 12th inst. on the charge of getting money under false pretenses, preferred by Dr. Luther Oylar, of Kokomo. Eilar is said to be a high-roller and spent money lavishly when on visits to Kokomo. He borrowed \$100 from the doctor, giving him a worthless check on a New Castle bank. Eilar is out on bond to await the convening of court.

Lewis Stockman, druggist at Illinois and Michigan streets, is a hero in the estimation of his fellow-members of the profession here. He captured a live burglar early on the morning of the 8th inst. He was awakened about 1 o'clock while in his couch in the rear part of the store, and he saw a dark form moving about. He saw the stranger help himself to cigarettes and then advance on the cash drawer. He arose, lifted up his revolver and called out, "Hold on, there." The next minute a hatchet came crashing through the prescription case in the direction of his head. The revolver went "bang, bang," and the robber threw up his hands. Stockman kept him covered while he telephoned for the patrol wagon, which arrived in a remarkably short space of time.

CLEVELAND.

Cleveland, December 23.—It is quite probable that the Legislature may reframe the poison law in order that it may more adequately meet the requirements and admit of uniform observance. The present law is virtually a dead letter, due to its looseness of construction and the neglect of the proper authorities in the matter of its enforcement. The poison law of Ohio requires that arsenic must be mixed with soot or indigo before it is sold, and that with all poisons the name, residence, age, sex and color of the buyer must be registered by the druggist, together with the date and the purpose for which the article is to be used. Farther, no poison can be sold without the prescription of a physician. In the case of morphine, neither it nor any of its salts can be sold in greater quantities than one dram, and it must be wrapped in scarlet paper and both wrapper and bottle bear scarlet label lettered in white. Penalties for violation of the law range from \$10 to \$200. Druggists would observe the law if it were so constituted that violation of it would be too dangerous, but, as it is, anyone can get a prescription for any article, and the druggists know this, and, if one refuses, his competitor on the next corner is willing to sell the article.

The \$500 state liquor bill is to have a competitor in a bill which will provide for a reduction of the present tax on beer-sellers from \$250 to \$100 per year, and making an assessment of fifty cents per barrel. The father of the bill is now endeavoring to find a way of reaching the whisky distillers on a similar basis. It is said that several local manufacturers are keeping their representatives busy framing measures against the drug trade. This is one phase of the proposed legislation.

The cut-rate schedule in force here some believe will result in wholesalers dropping some of the proprietary medicines from their stocks because the reductions now asked by the retailers will not leave the required margin. To avert this action, one druggist expressed the belief that patent medicine manufacturers will refuse supplies to all of the cutters, but a majority of the trade are a little skeptical on this point.

The druggists who paid the first installment of the cigarette tax, now that the second is due, are, many of them, dropping this line of goods. They claim that the sale of cigarettes has proved to be an unattractive feature of the business, and the few who continue the line do it merely for the accommodation of patrons.

A bill which has been framed by Dr. H. C. Scott, and which was to form the subject of consideration by the members of the medical profession of the state, at a meeting on December 1 at the Nell House in Columbus, places the medical fraternity on a basis similar to that of the registered pharmacist so far as regards legal qualification.

Dr. Martin L. Brooks, who has been practicing medicine in this city for over fifty years, celebrated his eightieth birthday December 8. His reminiscences of the early days of the medical and pharmaceutical professions are very interesting and demonstrate the highly satisfactory growth Cleveland has enjoyed within the last one-half century.

The holiday business has been very satisfactory.

The Cleveland Store Fixture Company is turning out some fine drug store outfits.

Strong, Cobb & Co. report a steadily increasing business in paints, oils and varnishes.

Cleveland druggists pay about \$13,000 annually into the treasury of the telephone company.

Stechor Bros. are the busiest retail druggists in town since they entered the barbers' supply business.

Physicians' registration laws, similar to that proposed for Ohio, are now in force in about thirty-five states.

J. L. Johnson's drug store at Parkman was burglarized on the night of December 10. Loss, one dozen gold chains and some money.

Louis Smithnight, of the Erie street firm of L. Smithnight & Son, was one of the organizers of the Cleveland Light Artillery in 1873.

Wm. G. Marshall, Public Square druggist, says the hard times have cured more drunkenness than all other known remedies put together.

Ed. Wolf, salesman for Strong, Cobb & Co., while on a visit to Orrville, slipped and fell on the icy sidewalk and received several injuries of the head.

There are about twenty paint manufacturers in Cleveland, and more than fifty distributors and wholesale and retail dealers in oils, paints and varnishes.

The Ohio Chemical Company, of Lima, which has been selling so-called bichloride of gold tablets, and the Keeley institute at Cuyahoga Falls, are in the hands of receivers.

Whiskey has been moving very freely of late, stimulated by the new revenue policy. The wholesale druggists do not find it hard to purchase supplies if they express a wish to do so.

The agent of the "Star" cut-rate drug store, in his newspaper advertisements is boldly defying what he terms a druggists' combine, and quotes prices below the cut-rate schedule adopted by the C. P. A.

The salesmen of the Sherwin-Williams Co. came in from every corner of the country to attend the annual love feast of this firm and its employes which this year took place December 11 at the Hollenden.

In 1829 Cleveland had but four drug stores, which depended for support upon the occupants of 168 dwellings. In 1835 there were 30 oil refineries, now there are some 30 concerns represented. In 1856 the Board of Health was organized, consequent upon the cholera scare.

Dr. William Bushnell, of Mansfield, who died a short time since, aged 93 years, was long a member of the legislature, served as a delegate to the International Prison Congress at Stockholm in 1873, was a member of the Ohio and American Medical Associations, and an authority on medical questions.

A number of Cleveland druggists are holding commissions as stamp agents and they are wondering whether the system will be extended by the future incumbent of the postmaster's position. Many think there should be considerable increase in the number of these agencies, so that the drug trade may get an adequate compensation for accommodating the public with postal material.

KANSAS CITY.

Kansas City, Mo., December 26, 1893.

There has been a marked improvement in the general condition of the drug market in this city and the southwest during the month of December, which need not all be laid to the season. The financial stringency, which was so general, has in a great measure been abated and the world seems back to its normal condition again. The wholesale druggists say that they expect an unusually heavy business this winter, because the retail dealers, who have been forced to cut their orders and keep their stocks down to the lowest living point will recognize the return of better times and take an early opportunity to buy again. The druggist's business is, per force, a business of necessity, and "hard times" are not so readily felt by him as by men who deal in the luxuries of life, but the books will show a great decrease in the volume of business for the last half of the past year. Nevertheless, there have been fewer failures in the drug business throughout the southwest during the past year than in almost any other branch of business. The western druggist is at all times a careful business man.

Kansas City has a very unobtrusive, but a very lively organization known as the Kansas City Paint, Oil and Varnish Club, which has a happy habit of meeting around the banquet table at the Coates Hotel once every two months, and after the candle has been passed and the air is blue with smoke, of dropping many bits of wisdom, sometimes highly colored, oiled and varnished. Such a gathering was held there on the night of December 14, when President Frederick N. Sewall reported the proceedings of the National convention at Pittsburg, to which he was a delegate, and the club congratulated H. D. Cutler on his election as vice-president of the National Association. Eighteen members of the club were present.

The great necessity of reform in the style of "containers" for poisons was again illustrated a few days ago, when, at Olache, Kas., Gertrude Canutt, 14 years of age, was poisoned to death by a dose of carbolic acid, administered to her by a nurse, who mistook it for medicine. A few days ago a Kansas City druggist sold a man a dime's worth of arsenic, wrapping it in a piece of brown paper, on which he wrote with a faintly colored pencil the words: "Arsenic, poison." The man tried to commit suicide with the poison, but his life was saved.

Burglars broke into John R. Conley's drug store in the First National Bank building, Kansas City, Kas., and stole \$100 worth of goods a few nights ago.

G. Howard Willett fell from a step ladder a few days ago and severely sprained his ankle. He will be forced to use crutches for some time.

Hugh Arnold, son of H. C. Arnold, is now a clerk in his father's drug store, where he is learning the mysteries of the prescription case.

A safe brawler under arrest at Whitesboro, near Dallas, Tex., has been identified as H. A. McMillen, who conducted a drug store at the corner of Eleventh and Walnut streets, in this city, four years ago.

Randall & Whitney, who have long had a drug store at the corner of Fifth and

Central streets, have bought Miss C. Farabee's drug store at the corner of Twelfth and Locust streets, and will hereafter run both stores.

S. Hirsch & Co. filed a motion in Judge Henry's court that J. V. Ellard, receiver for the Palmer & Keith Manufacturing Company, a drug concern at the corner of Twelfth street and Broadway, be ordered to pay them a claim of \$63.06 for goods sold and delivered.

Dr. S. H. Wainwright, for eight years a medical missionary stationed at Kobe, Japan, and a brother of Dr. Charles F. Wainwright, of Kansas City, read an interesting paper on the medical practice of Japan and the Chinese theory of disease and medicine before the Kansas City Academy of Medicine a few nights ago.

E. W. Adams, formerly proprietor of the Pendleton Heights Pharmacy, has bought the Schoen drug store at the corner of Fifth and Wyandotte streets. Mr. Schoen is preparing, as mentioned in a recent issue of the Era, to open a prescription pharmacy in the Riakto building. After completing the purchase of the store Mr. Adams sold a half interest to Mrs. Catherine E. Rose for \$1,250.

Horace S. Lynn, president of the Mineral Milling Company, and vice-president and treasurer of the suspended Continental Trust Company, of Kansas City, was arrested a few days ago charged with grand larceny by receiving deposits into the trust and banking company, knowing it to be in a failing condition. Frank A. Faxon and J. C. Horten, of the firm of Woodward, Faxon & Co., became his bondsmen for appearance in court.

F. R. Rice & Co., cigarmakers, of St. Louis, have secured a temporary injunction against the James O'Brien Cigar Manufacturing Company, of Kansas City, preventing the latter from manufacturing the "Americantle" cigar, which they claim is an infringement of their trade mark, "Mercantile." The case will be heard in January in the Circuit Court. Both cigars are handled almost exclusively by drug stores.

The Kansas City College of Pharmacy has established a pharmacological laboratory in the building of the Kansas City Book and News Company on Main street, north of Eighth street. Lectures are still given in the rooms of the University Medical College and the students use the chemical laboratory of the medical college. The College of Pharmacy has outgrown its accommodations there and this fall has established the branch laboratory, as a matter of necessity.

A fire of incendiary origin broke out in Druggist R. J. Holmes' carbonating works, No. 2404 East Fifteenth street, a few nights ago. It was put out by the firemen before more than \$100 damage was done. Assistant Chief Trickett made an investigation and found a pail of coal oil and a cup in the building, and traces of oil on the woodwork. A man was seen in the building a few minutes before the fire broke out, but when the firemen arrived the place was locked up. The building was insured. Mr. Holmes' drug store at the corner of Ninth street and Prospect avenue was destroyed by fire a year ago.

R. J. Holmes has begun suit for \$1,500 damages against Louis W. Craig for an alleged breach of contract for the sale of his store, which was mentioned in a recent issue of the Era. Mr. Holmes says in his petition that on December 1, 1883, he sold his drug store, at the northwest

corner of Eleventh and Walnut streets, to the defendant, with stock, fixtures, lease on building, good will, etc., and agreed to take notes secured by real estate for payment, the whole consideration being \$6,000. The contract was made out and signed, it is alleged, and placed in escrow with the drug store in the hands of J. C. Neal. But before the plaintiff had examined the real estate he alleges that the defendant notified him that he had backed out. The plaintiff says he was damaged, and wants a judgment of \$1,500.

THE SOUTHWEST.

Andrew J. Arnold, a prominent druggist in Topeka, Kas., has been appointed postmaster of that city by President Cleveland.

A burglar broke into the house of Richard Platt, of the Platt & Thornborough Paint Company, St. Louis, and stole \$300 worth of jewelry and clothing.

O. D. Harris, a druggist and grocer at Whitney, Tex., failed a few days ago. He made a deed of trust securing local creditors to the extent of \$10,000.

L. W. Robinson's drug store at Durant, I. T., was destroyed by a fire which wiped out half a dozen stores in that town, not long ago. His loss was about \$1,500.

The Thurmond Chemical Company, of Dallas, Tex., has been incorporated with a capital stock of \$25,000. The directors are W. J. Thurmond, W. A. Shaw and W. Kirby.

The Burnett Paint Company, of Wichita, Kas., has been incorporated with a capital stock of \$50,000. The directors are Hiram Burnett, James Burnett, O. H. Bentley, C. R. Burnett and Rudolph Hatfield, all residents of Wichita.

The American Antiseptic Company, of East St. Louis, has filed articles of incorporation with a capital stock of half a million dollars. The organizers of the company are Louis Wheelock, Isaac D. Stone and John C. Mussick.

The Kansas State Board of Charities met at Topeka a few days ago and awarded contracts for supplies for the various state institutions. The contracts for drugs were let to Andrew J. Arnold, Swift & Holliday and J. K. Jones, druggists, of Topeka.

A certificate of incorporation has been issued to the Lankford Chemical Company, recently organized at Galveston, Tex. It has a capital stock of \$10,000. The incorporators are: E. E. Lankford, George A. Lankford, A. Robertson, W. Hall and H. J. Labatt.

The A. B. Whiting Paint and Glass Company, of Topeka, Kas., has filed articles of incorporation with a capital stock of \$10,000. The directors are A. E. Whiting, A. L. Whiting, E. E. Merriam, J. K. Jones and E. H. Jones. They all live in Topeka and J. K. Jones is a druggist there.

A window in John C. Philbrick's drug store at Oregon, Mo., was being decorated for the holidays by R. Hinnen, the manager, when he dropped a match on the cotton trimmings and soon the contents of the window were ruined, making considerable loss. The fire was kept from reaching the contents of the store.

A disastrous fire broke out at Waxahachie, Ellis county, Tex., December 19, and destroyed the business part of the town. W. G. Lamar's drug store was destroyed, making a loss of \$8,000 on stock and \$5,000 on the building, and Lancaster

& Mathews' stock of drugs and books was burned with a loss of \$15,000 on stock and \$5,000 on building. The losses are about covered by insurance.

In the big fire at Hannibal, Mo., W. W. White's drug store was destroyed. His loss was \$500, covered by insurance. A. A. Allhouse was compelled to hastily move his stock to a place of safety, and he lost considerable by theft and breakage. Robinson Eros', stores, stocked with paints, oils and varnishes, were destroyed. Their loss, including their two buildings, was about \$30,500, with \$20,000 insurance.

ATLANTA.

Atlanta, Ga., December 23.—The drug trade of this city has suffered greatly from the hard times which it seems will never abate. Physicians are doing very little, and, while the grip is raging here, people prefer to dose themselves rather than to pay a physician. Collections are very poor indeed. The streets are crowded with people who, however, do very little trading, and especially a few druggists have laid in an extra supply of fancy goods, etc.

The Adams Paint, Oil and Drug Co., Savannah, Ga., has been incorporated with a capital stock of \$10,000.

R. R. Evans, manager of the Lamar & Rankin Drug Co., has gone to Knoxville, Tenn., to spend the holidays.

The firm of O'Keefe & Fleming, of the Aragon pharmacy, has been dissolved, and is succeeded by Fleming & Co.

D. R. Stauffacher, who has been representing the Wm. S. Merrell Chemical Co. in this territory, has connected himself with another house as traveling salesman.

The selling fever seems to have struck the druggists of Atlanta, as two druggists have advertised their business for sale, one being C. E. Sewell, 178 Whitehall street.

The King's Royal Germeteur Company has filed a petition with the clerk of the Superior Court to reduce their capital stock from \$350,000 to \$140,000, and to change the par value of shares from \$100 to \$10 each.

Smith & Dozier, corner Whitehall and Mitchell streets, have sold their fount and all appurtenances to Willis Venable, who will, it is said, conduct the business at the old stand.

It is rumored that a new firm will commence business in Atlanta, about January 1st, to manufacture elder, vinegar, and flavoring extracts, and will cater mostly to the country trade.

Strong efforts were made at the meeting of the Legislature, which recently adjourned, to create a state board of health, the need of which was clearly pointed out during the recent epidemic of yellow fever at Brunswick. Gov. Northen advocated it in his message, but it seems that the Legislature has not done its duty and created such a board. It is hoped that this question will again be brought up and passed at the next meeting of the Legislature.

An act has passed the House in the Georgia Legislature to put druggists' bills against an estate on the same footing with physicians' claims. The Georgia druggist is in a fair way to be recognized as a preferred creditor.

BOARDS OF PHARMACY.

The Georgia Board of Pharmacy met at Atlanta November 27 and examined a class of fifteen. The following persons were granted licenses as pharmacists: J. O. Baker, Savannah; J. W. Hildout, Macon. Apothecaries were Reuben Kelly, Atlanta, Martin Meadows, N. J. Gillespie, Macon. The druggists were E. S. Britton, A. G. Scriven, W. W. McAfee, Atlanta; A. B. Greene, Manlita, and B. F. Herring, Cordelle. Mr. S. C. Durban was sworn in by Gov. Northen for a five years' term. The old officers, John W. Goodwyn, chairman, and H. I. Slack, secretary, were re-elected. Mr. J. C. Baker passed the best examination and was awarded the complimentary Interstate certificate. The board determined to offer, as a special prize, a membership in the American Pharmaceutical Association to the candidate who should pass the best examination during the year. Any pharmacist can try for the prize, even though he be already licensed, provided he has not been before the board more than twice. The object of the prize is to encourage further study among the licentiates. After January 1, 1894, the candidate will be required to pass sixty-five per cent of the questions asked by the board instead of sixty per cent, as heretofore.

The Illinois State Board of Pharmacy, at the practical examination held at Chicago November 21, 22, 1893, granted certificates as registered pharmacists, by examination, to the following persons: A. A. Andres, A. C. Cole, F. B. Hildebrandt, E. A. H. Laddish, C. E. Perkins, A. Rosenwald, J. B. Sutton, of Chicago; and D. W. Rockwell, Jerseyville. Assistant pharmacists: H. W. Brown, L. A. Busse, R. H. Butler, F. W. Dudley, J. T. Edward, J. H. Greves, C. J. Habegger, J. Hooper, F. W. Keuper, W. T. Liddell, A. A. Moskiewicz, A. J. Seyster, R. J. Thretheway, E. J. Weeks, C. F. Worm, of Chicago; W. A. Dixon, Decatur; O. P. Morse, Rogers Park; H. H. Vanatter, Joliet; G. W. Wagner, Oak Park. Twelve failed to pass a satisfactory examination. The next meeting of the board for examination will be held at Springfield, January 9, 1894, in Room 3, State House. The second meeting of the board for examination and other business will be held February 13, 1894, at 9 o'clock a. m., No. 175 Thirty-ninth street, Chicago.

Louisiana Board of Pharmacy, at its November meeting, granted certificates as registered pharmacists to D. F. Goldsby, Amite City; Gustave Katz, New Orleans; F. C. Latolais, Broussard; A. L. Martin, New Orleans; C. H. Germain, Lake Arthur. At the examination the following were successful in securing A. P. certificates: A. Broussard, Rayne; A. K. Grace, Plaquemine; Jos. A. Lang, New Orleans; Geo. E. LeRay, Crosby Landing; J. E. Mickelson, New Orleans; J. M. Oliver, New Iberia. Qualified assistants certificates: E. J. Bastian, New Orleans; A. E. Blanchard, Plaquemine. Successful candidates will hereafter be required to answer 70 per cent of the questions asked by the board in an examination. A committee was appointed by the board to draw up amendments to the pharmacy law. The board holds its next meeting February 10, 1894.

The Kansas Board of Pharmacy held its fourth quarterly meeting at Concordia

December 6th, 1893. Twenty-seven applicants for registration appeared for examination. Certificates as registered pharmacists were issued to the following: A. H. Hodley, Minneapolis; W. W. Griswell, Clatfin; J. G. Campbell, Oberlin; J. T. Clements, Neosho Falls; J. H. Dykes, Lebanon; Fr. A. Eckdall, Emporia; H. O. Hardesty, Beamsville; A. N. Miller, Junction City; J. A. Miesel, Kansas City; C. V. McCaughan, Olathe; J. N. Nelson, Concordia; E. H. Thompson, Ottawa. Assistant: O. A. Keene, Topeka. Ft. Scott, March 7th, 1894, was selected as the time and place of the next meeting. Examinations begin at 9 a. m. and are for one day only.

Massachusetts' Board of Pharmacy recently examined a class of forty-three applicants. As a result of the examination certificates were issued to the following: Edward B. Moulton, of Cohasset; Carlton W. Crocker, Jr., East Boston; Austin C. Dinsmore, Fitchburg; Harry D. Wheeler, South Boston; Wm. H. Bodroo, South Boston; Rollin A. Munroe, Malden; James H. Hayes, East Boston; Frank W. Dickinson, Boston.

Connecticut Board of Pharmacy has arranged to supplement its oral and written examinations by one of a practical nature. A well equipped dispensary has been arranged for this purpose in one of the capitol rooms at Hartford, where the applicant will be put through a series of practical tests in dispensing and compounding.

Missouri Board of Pharmacy will hold its next meeting at Liederkranz Hall, St. Louis, January 8 to examine candidates for registration. Candidates will be examined individually by the board, and not by a schedule of questions to be answered and subscribed to by the candidate under oath, as heretofore.

Washington Board of Pharmacy meets at Spokane January 8th for the purpose of examining applicants for registration.

Missouri Pharmaceutical Association will hold its next regular meeting at Excelsior Springs, June 12 to 15 inclusive. The association has received thirteen applications for membership.

PROCEEDINGS N. W. D. A.

Secretary Merriam has been very prompt in getting out the report of the Detroit meeting, held last October. The pamphlet contains 240 pages, and is embellished by an excellent portrait of President Frank A. Faxon. Its contained committee reports are valuable for information and reference.

Sibley, Lindsay & Curr, Rochester, N. Y., have placed their drug department in charge of Ross L. Rainsford, a licentiate of the New York State Board of Pharmacy by examination.

From figures compiled by the Army and Navy Journal it is learned that of the 10,000 men enlisted in the army during the past year, 39 were druggists, 2 were chemists and 2 were dentists.

Thirty drug stores at Topeka, Kas., have license to sell liquor for medicinal, mechanical and scientific purposes, and during the month of November last they made 6,246 such sales, or an average of over 206 for each. The highest and lowest number of sales reported to the Probate Judge are 500 and 86 respectively.

CORRESPONDENCE.

We accept no responsibility for the views and utterances of our correspondents. Contributions must carry full name and address of the writers, which, however, will not be published, if so requested. Copy should reach us ten days in advance of date of issue.

AN ODDIOUS TRAFFIC.

To the Editor of The Pharmaceutical Era:

Under the above heading, Messrs. Parke, Davis & Co., of this city, have an article in their organ, "The Bulletin of Pharmacy," which is published by their general manager, Mr. Geo. S. Davis. They quote from the preface of one of our catalogues, our statement regarding our make of non-secret medicines, as follows: "Non-secret medicines are simply ready-made prescriptions prepared without secrecy or fraud. * * * Non-secret medicines do not in any way imitate or simulate patent medicines." They must be given credit in this instance for quoting us fairly, as the quotation is correct, and is the platform upon which we based our business when we originated and first offered non-secret medicines to the drug trade, and we are satisfied to have our preparations of this kind stand or fall on that platform, as our non-secrets are pharmaceutically prepared, without secrecy or fraud, and do not in any way imitate or simulate patent medicines.

So much for our side of the case. Now as to theirs. It is a well-known fact that they manufacture quite as full a line of non-secrets as we do; that they have pushed their sale wherever they have had an opportunity, and have sold their "scientific substitutes" for our original non-secret medicines wherever they could get a chance to put them in; therefore, the remainder of the article would simply be a reflex of the experience of those who have handled their goods. They further state, and they must be speaking from their own experience, that the non-secret traffic (which in this instance must be taken as their non-secret traffic) is "sustained by appropriating the advertising of the leading patent-medicine makers; by devising formulae which replace well-known patent nostrums ("scientific substitutes," undoubtedly,) by simulating labels, wrappers and packages as closely as the law and the patience of the victim will permit." We believe this last quotation to be strictly in accordance with their platform and their experience, for, as we have stated in the November number of the "New Idea," we have in our possession a line of such products as are put up by them, and we particularly referred to a comp. syrup of sarsaparilla, made by them in the style of Hood's, which as closely resembled Hood's as it was possible to make it without absolute infringement, which point was got around by twisting the large "Z" on the front panel so that the line "Sarsaparilla" runs downward from left to right, instead of upward from right to left, as it does on Hood's. There is no non-secret house in America, to our knowledge, which puts up an imitation of Hood's Sarsaparilla except Parke, Davis & Co.; therefore, the following quotation taken from their organ, "The Bulletin of Pharmacy," must refer to their own imitation: "An actual incident in the recent experi-

once of a correspondent furnishes forcible proof of the injury a druggist is most apt to inflict upon himself by an active interest in some non-secret substitute. Our correspondent, receiving a call for Hood's Sarsaparilla, handed out a bottle of the genuine preparation. The purchaser, after examining it very intently, with manifest surprise, paid the price, and handed the druggist a parcel which proved to contain a close non-secret imitation of Hood's article. "They tried to make me believe at a store up the street," he added, "that what I really wanted was no better than this, and I allowed myself to be persuaded by the man's assurance and paid for the bottle. After coming away, I felt utterly disgusted at having something forced on me in this way. I now have what I want. You can keep that stuff."

It seems rather curious that a house of any cleverness whatsoever would play with fire, or would make use of that favorite weapon of the Bushmen of Australia, known as the boomerang, which in the hands of those unskilled in its use, is likely to come back at the person who throws it with terrible force. That this article on "An Odious Traffic" will prove a boomerang for Parke, Davis & Co. is a certainty, as we have in our possession lines of their non-secret preparations, which are clearly imitations of patent medicines. They may have in their possession full lines of our products, which "do not in any way imitate or simulate patent medicines." The question then is, who is carrying on the "Odious Traffic." F. Stearns & Co., whose wrappers are original, and "do not imitate," or Parke, Davis & Co., whose wrappers are copied after patent nostrums, and do imitate them? There is no need of this would-be high and mighty self-appointed "ethical" concern, contending any longer that non-secret medicines are imitations, and that the manufacturers thereof are pirates and brigands, unless they take pleasure in calling themselves names, and their own products imitations, as the truth must prevail, and the facts are known and the proofs before us that they do manufacture non-secrets as largely as any house in existence, and furthermore their preparations are, we believe, the only real imitations of patent medicines offered by any non-secret manufacturing house. Therefore, if the non-secret traffic "works in the dark, uses the druggist as its cat-paw, appropriates, imitates, and filches from every quarter"—as they state it in their organ—they must assume their share of such wrong doing, as they are largely responsible for this outcome, and they still continue to "appropriate, imitate, and filch" by extending this line of their business.

We have been reliably informed that since it has been proven what hypocrites they are in condemning in others what they daily practice themselves, their general manager has issued letters of instruction to their traveling representatives not to offer or show any more "package goods," as they term their non-secrets. This, however, will not help their case in the least. Their former instructions were definite and full; their salesmen were posted, and their customers supplied with their non-secrets, all of which are in existence, and furnish sufficient proof to condemn them. The trouble has been that they blow hot and cold

with the same breath and have tried to ride too many horses at one time. They worked the "ethical" dodge with physicians about not trade marking preparations, to its fullest extent, at the same time on the quiet took out trade marks. They condemn patent medicines and nostrums as "the bane of the medical profession," and as "an injury to the public health," yet they devote a large portion of their laboratory to the manufacture of such, and use every effort in their correspondence department to the securing of orders for such. They state that they "hold strong convictions concerning the character of the non-secret business," yet have done everything in their power to increase their own business in this direction. In all three lines of work, the so-called "ethical," the nostrum, and the non-secret business they have practiced exactly opposite to what they preached. They have been found out, exposed, and published. This galls them, and for the reason of our having been the ones to expose their double dealings, they attempt to attack us on our non-secret business, overlooking the fact—if it is an odious traffic—that they are deeper in the mire themselves than could possibly be any house which avowedly makes non-secret medicines, for, even allowing for the sake of argument that the whole system is wrong (which it certainly is not if carried on according to our platform), still those who state in their catalogues that they do make these products are certainly at least honest and sincere, while those, such as Parke, Davis & Co., who state that they do not make such goods, but continue to do so, cannot but be considered as hypocrites.

A few words more. In the same number of their organ, "The Bulletin of Pharmacy," they attempt to ridicule our Wine of Cod Liver Oil. This might be expected of such a house, which had a special man engaged for three or four months trying to devise a "Scientific Substitute" for this very preparation, which is truly a fact. After having had a year's time to get out their "Scientific Substitute" for it, they give it up in despair. Had they been successful, the drug trade would have seen another instance of their "teaching these brigands a lesson," as they expressed it when they offered their half-strength Fluid Cascara Aromatic, as a "Scientific Substitute" for our original full-strength preparation. But as they were unable to duplicate our product, they are obliged to take another tack, and now come out with the statement that we "see in the conclusions of two speculative Frenchmen a chance to foist upon a suffering public a compound whose promises are so bright and whose taste is so pleasant." The "two speculative Frenchmen" referred to are Messrs. Gautier and Mourgues, who are universally known as two of the most advanced investigators in the field of organic chemistry in the world. Their work for the past five years has been mainly devoted to the study of the alkaloids and active principles of Cod Liver Oil, and for the last two years they have confined themselves exclusively to this subject. In addition to the above chemists M. J. Bouillon, one of the most prominent physicians of France; Lafage and Germain-See, two of the best practitioners, and most widely known writers on therapeutics in Paris, as well as many other eminent authorities have proved conclusively that Cod

Liver Oil does contain alkaloids and active principles, and that it is due to those alone that Cod Liver Oil is valuable. We would further state that we did not accept their statements without proving them, and months before our Wine of Cod Liver Oil was put upon the market, we placed it in the hands of the most eminent practitioners of Detroit, and furthermore had it tested clinically in all our large hospitals, such as Harper, St. Mary's and Grace. It was upon the flattering clinical reports that we received from Dr. E. L. Shurly, chief of staff of Harper Hospital, who is regarded by the medical profession of this country as a standard authority on laryngotomy and phthisis pulmonalis; David E. Inglis, recognized as one of our most noted neurologists; Oscar Le Seure, attending surgeon and gynaecologist of Grace Hospital, and many others, that we placed it in the hands of the profession generally. We did not jump at conclusions as did Parke, Davis & Co. in their appropriating the work of Dr. Hammond on Cerebrin without verifying his statements by clinical work of their own and therefore we have had no occasion to offer the medical profession so abject "An Apology" as they did, but we did have original clinical work done for us by the most eminent practitioners in noted hospitals; therefore, any attack upon our preparation by P. D. & Co. can only show their jealousy at our success and expose their own weakness. Had they brought out a preparation of such merit, and had they the result of such clinical experiments to back them up, the shoe would have been on the other foot. Where they cannot originate, they imitate; where they cannot imitate, they abuse.

Yours very truly,
FREDERICK STEARNS & CO.,
By F. K. STEARNS, President,
December 22, 1893.

UNIFORM PRICES FOR PHARMACEUTICALS.

At its recent meeting the N. W. D. A. passed a resolution and appointed a committee to consider the advisability of some action which would bring about a uniformity of prices on pharmaceutical products. The views of a few leading manufacturers are given below:

To the Editor;

We believe that the lists of the leading manufacturers of pharmaceutical products are practically uniform, differing chiefly in the matter of special products of their own individual manufacture.

We believe, also, that the discounts to the wholesale and retail trade from the list prices of the leading manufacturers are practically identical.

We appreciate the desirability, from the wholesalers' standpoint especially, of an even greater uniformity, both in list prices and discounts, than at present is in force. This could not be accomplished without the hearty co-operation of all manufacturers.

SHARP & DOHME,
New York.

To the Editor:

We desire to acknowledge the receipt of your letter extending to us the use of your columns in setting forth our views as to the feasibility of bringing manufacturing pharmacists together under a single standard as regards prices and relations of these manufacturers to

the jobbing and retail trade. We believe on account of the diversity of opinions among manufacturing pharmacists concerning the various policies that may be pursued in conducting their business, that it would be impossible for us to even faintly outline a plan that would be acceptable to all, or perhaps even to a few. We believe that the suggestion of the committee appointed by the N. W. D. A. to consider this subject, namely, that a meeting of all the manufacturers should be called with the committee at some time in the future, is the only one that will be productive of any positive results.

Judging from the unfriendly attitude that many manufacturing pharmacists evince toward each other, we fear that it is almost a hopeless task to look toward any co-operation. We believe, however, that the attempt should be made, and shall most assuredly strive to aid the committee to secure some favorable action.

THE SEARLE & HERETH CO.

Per F. S. Hereth, Vice-President,
Chicago.

To the Editor:

The following is a copy of a letter to the chairman of the committee, to whose charge this matter was confided:

We recognize the inconvenience to which the trade is put by the variations in prices and discounts of the different manufacturers of pharmaceutical products.

Whether a uniformity will benefit the different manufacturers is a mooted question.

Convenience in business is an object that should not be disregarded; and our house would probably agree to join all the others in the uniformity of catalogue prices.

These, however, would likely not remain uniform; for fluctuations in market prices would necessitate changes; and these changes might not easily or promptly be agreed upon.

As to entangling ourselves with any contracts or agreements: such an idea is entirely distasteful to us. Our observation of these in other business relations has too clearly demonstrated to our minds their folly. Such seem to benefit only the designing and unprincipled at the expense of the honest and conscientious.

Those agreements can be honestly maintained among a few houses who have absolute confidence in each other; but when a large number is involved the scheme, to our mind, is impracticable.

The disposition—which you deplore—on the part of manufacturers of pharmaceutical preparations to sell to whoever will buy, is one of the results of active competition. We cannot agree with you that such action induced or induces jobbers to manufacture their own line of pharmaceutical preparations; we think the motive altogether mercenary. Whether they have been disappointed in results, we cannot say; but we are persuaded that the manufacturers have studiously endeavored to protect the jobbing interests by not selling at the same prices to others who do not buy in equal quantities.

While we will be glad to assist your committee in smoothing the rough places; in making intercourse more

pleasant and easy to all concerned, we must decidedly decline to entangle ourselves with any alliance that might either violate our business morality or handicap us by the shortcomings of others.

Yours very respectfully,
HANCE BROTHERS & WHITE,
Philadelphia.

ALMOND OIL.

To the Editor:

I notice in the December 15 issue of your paper, page 543, an article similar to that which appeared in the December edition of the American Soap Journal, of Chicago, entitled "Almond Oil." I presume this article originally comes from a paper called "Oils, Colors and Dry Sulfurites," which, however, is unknown to me. As you doubtless know, I am probably the largest importer of this special article in this country, and I took exception to the article in the Soap Journal in a letter written the publisher, the substance of which is as follows:

Anybody who has had the least experience will see that it is written by somebody who has absolutely no knowledge at all of the article, and as it seems, also a very limited idea of chemistry. I will only mention a few points, as it would take too long to correct every mistake in it. In the first place, the fatty oil is pressed first, and the essential oil distilled afterwards. Furthermore the sweet almonds are always pressed peeled, while the bitter almonds are pressed unpeeled, for the simple reason that the bitter almonds are distilled after the expression, and the peel, therefore, does not change the essential oil, while the sweet almonds are powdered after the expression, for high grade face powders, and therefore must be white. I have not found sweet almond oil to be soluble in alcohol. I suppose you refer to the essential oil, which, however, you should state, as you speak of the sweet almond oil before. The most amusing, however, is that the writer mentions as adulterants, poppy oil, rape oil, sesame oil, peach oil, and apricot oil. The real adulterant, which is peanut oil, he does not mention at all, and what he means by keeping peach oil and apricot oil apart I do not understand. I believe he does not even know what these oils are. He means under both, peach kernel oil, or the expression in the trade is, almond oil persic. He gives seven tests for almond oil, and I may tell you I can give you a simple test for the genuine almond oil, in a few words, which will cover all and everything, and does not require such experimenting as he calls for.

Yours truly,
GEO. L'UEDERS.

New York, December 20.

WINDOW DRESSING.

To the Editor:

It is not through a matter of envy, jealousy or deception that I write to you these few lines, but when a brother druggist, as Mr. A. J. Embree, of Belton, Texas, discovers something new and runs four columns write-up in the Era to inform the world of this fact, as being his invention, I have a right to howl. I don't claim to be brighter or more of a genius than any one else, but assure you that his description is almost identically the same as if he had taken a photograph of my window during Easter

week for the last three years. The only difference that exists in the whole four columns write-up is that he has a fish pond and I have used a chicken yard. I will not accuse Mr. Embree of not having invented this new, attractive window, but I do accuse him of having exactly my ideas, except he is greater on getting diploma and write-ups and being three years behind the times. I refer for the truthfulness of the statement that my window was just exactly the same as he described, last spring, in the spring of 1892, and also in the spring of 1891, to the First National Bank, Oklahoma National Bank, Oklahoma City Bank, Daily Journal, and Preachers' Nicos, Cross or Francis.

Yours truly,

J. WAND.
Oklahoma City, Ok.

WHAT THE DRUGGIST DOES NOT KNOW.

Here is a little contribution which emphasizes the fact that there are some druggists who are not thoroughly posted in the proper use of the English language. It is presented to serve as a terrible warning to the careless. It might be said in explanation that this plaint comes from a druggist in Indiana, a state which is not favored with a pharmacy law.

"I wish the medicine traid to take steps to prohibit other merschants from selling drugs as they are inguring the Drug traid bu Cutting on drugs we have dry goods merschants in our town that are gust Comensed that game so you will please notify other whole sal houses that the drugist must be in a uniom or the traid will perish I have handjed medicines for thirty years and do not want to see our traid fall I am a frm man in my ways if a man should rather die than to pay the price of medicine when he is able I just have the snap to let him die for such men are a neunance to Comunity
this from your friend"

U. T. A. LABEL.

To the Editor:

In your issue of November 1st you call attention to a plan to prevent cutting, managed by a corporation in Detroit, called the Universal Trade Association. Since reading your article, I have closely examined the plan or system of the association, and I think it thorough, effective and businesslike. It is manifest that the complete success of the plan in eradicating the great evil of cutting lies with the retail druggists themselves. If they all, or even a majority of them, join the association, they will effectually combine for mutual protection. The association provides the means and it is for the retail trade to adopt them, and cutting will be relegated to the things of the past. Let retailers show a bold and solid front to protect their business interests from the Inroads of the rapacious and nefarious cutter. The plan of the U. T. A. has my unqualified and cordial support and approval. It seems curious that so simple and efficacious a method of putting an end to cutting was not thought of before this. I wish the U. T. A. the enduring success its methods deserve.

Yours truly,
N. A. GOODWIN, M. D.
Detroit.

PERCENTAGE SOLUTIONS.

I send you here with a simple rule formulated into words for making the lately much used percentage solutions. It will stand the test of exact mathematical examination, and has been very much used by druggists in this city for years. It runs thus: Multiply the weight (in grains) of a dram of water, by the number of drams desired, multiply this product by the percentage desired. Dividing all this by 100 gives the percentage. The result will be the number of grains to be added to the quantity of solution desired. For easy memorizing, the rule may be run off thus: Multiply the weight of a dram by the number of drams and this by the percentage. Divide by 100 for percentage. Every one who uses this rule is struck by its simplicity, facility, compactness, and exactness. It will be useful, I am confident, to doctors, druggists, and students alike.

JOHN P. JUDGE,
Philadelphia.

WHAT THE DRUGGIST MUST KNOW.

A Porous Plaster without holes.
5c. Crosha salts.
5c. worth of magazine.
10c. worth of faddy.
5c. worth of Buln.
Alune.
5c. Red Pacific.
for 5c. centas.
5c worth of salts and sunyon.
5c. Slipity Powder.
Zena.
Magazine.
Litsillive.
A package of salt Celler salts.
5c. worth of world.
5c. Buchel leaves.
Sconks gresse for Baby.
Parrigorick.
1 lb. of june aberry.
Oydyform.
Calumet.
5c. Sofa.
one hose and nipebl.
Seinneva.
Comp. Carth. Plast.
Comp. Cathartek Pills.
What is turpentine used for.
Clnlnnattl.
Breath Pills.
Setlass powder.
Powderd Bolick.
10c. Nitereck off Acid.
10c. Weisslerline.
10c worth quersoot.
Sweet Niter and linseed meal not ground.
10c. roshell saultz.

M. H. WATSON,
Chicago, Ill.

A vile of perfumery The Name "Little Conceino" send me a dime bottle If you Have it." & if you Havent got Dimes Bottle Send me a dime Bottle of some other Kind of the best you Have."
5ct wirth of Prepared Chalk."

J. E. STORMES,
Lancaster, Ky.

iadien one once
castoria one bottol
Vaslene sav
grouvond flax seed
Venical Read.
Crosfosulphermate.
One Porridge Plaster.
Initial Red.
Bulldog Bitters.
Canada Paper.
Absence of Salts.

Bronical Torches.
Tom Cat Pills.
Mc Lean's Worm Refuge.
JOHN W. RUPP,
Waterville, O.

Chuculate of Patash.
Camel Tea.
Good for Cordial.
Lunland Leaves.
Tincture of digital.
Zethlers powderx.
Fennil.
One bottle of Virtue and Magnesia.
One box of secrets powders.
5c worth of air tightening.
Benzine Porous plaster.
Cabinet Tea.
TKenepike.
1c worth of that stuff that bites.
Pulverized Gumbarac.
Box of Sympathy powdres.
Trish jerry Patrick.

C. H.

BLACK LINEMET.
1 pt, Alchole.
2 oz. of orgamen oil.
2 oz. of oil of spike.
2 oz. of Camphor Gum.
2 oz. of Hors Horn.
2 oz. of Britch oil.
external 1883.

N. P. WESTBERG,
Madison, Minn.

I am bound up in my bowls and every time I eat I have the cramp in my stomach and shoulders so bad from

pleas to Send me Sanethug to kept these worms fonne camng oup in My Mouth I never was truble with theame be for in my lift.

Please send me one vile Paregoric for my baby he is sick charge to me

hastely
Sept 2.

Please send me 5 cts worth of phnas-teen.

10 grains of zlnk.
10 grains sugar lead.
In 2 ounces of werter.

I send 5cts. by the Girl Please send me worth in Epsom Saults And oblige

Please sir send me something to take I have a verry bad pain in my stomic the pain is from my nable and every time I make water it all most cut me in two I saw a little blood in the water and the small part of my back hurt me two Pleas let me know what my bill is

please fill this perscription from Dr. Smith that you did Last for the irry-riplus for my mother and oblige

Please send me 20 grains of powderd quinlne.

Please send me 10 cts of Parregoric.

Please send me a Bottle of Mrs Winsloes soothing syrup.

You will send me
25 grains of sugur lead
25 grains of white viturl
1 oz of rose water
& 5 cits worth of ladnum diox mix It
25 Cts is what I hav ben baying for It yours truly

Please let Jacob Brown have what mederson prescribe for his wife.

Please send me one vile of castroil and 5 cts. worth of ammonia charge to me and oblige

One vile balsam of copabia 10
" " parigoric 10
" sweet spirits nitre 10

Dear Mrs. Pergerson

I intended to come over to night to see how the baby is but the weather is

so threatening I will write if the baby is no better give 1/4gr of Calomel and 1/2 gr of dover Powder give ever four hours untill you give four Powders I hope the baby is better your friend

M. C. G.

Mr. Koelnig I send this note to you Mrs Gilliland wrote to me night befor last about my baby she has been to see him. he has been sick ever since I was up there and does not seem to get much better his passages are green this A. M. and so much water in them but he has not had as many yesterday and last night as he did before you can send if you think he needs it will not do him any harm if it does not any good they have been very bad ever since I was there I send my calamon vile take yours out of it he is lively but has fallen off so much I think it is his teeth if you dont think he needs it send me word but I guess Mr. G— knows best he is sick at the stomach and heaves often does not heave anything charge to me and oblige

send me 5 cts worth of blue mass for my liver is all out of order, the baby is 6 1/2 months old—

F. W. KOENIG.

The British Columbia Pharmaceutical Association, at a meeting held in Nanaimo, decided to join with the eastern associations in forming a Dominion Pharmaceutical Society, and to have a Canadian Pharmacopoeia. The association also resolved that the provisions of the pharmacy act should be strictly enforced throughout the province.

John Martin and attorney J. D. Laws have gotten into trouble in Des Moines for attempted blackmail upon druggists. Their methods were to begin injunction proceedings against druggists who were suspected of selling liquor illegally, and later to make arrangements with the individuals whereby proceedings would be dropped. Their methods did not meet with the approval of the grand jury.

Four sisters in New South Wales, aged respectively 18, 9, 5 and 3 years, are reported by the Chemist and Druggist to have been seriously poisoned through inadvertently swallowing some antiseptic tablets of perchloride of mercury, prepared by Parke, Davis & Co., of Detroit. The tablets were packed in a colored bottle and had apparently been mistaken for sweets by the girls. The directions on the bottle were that for a solution of 1-1000, one tablet was sufficient for five ounces of water, it being seen that each tablet contains about 2 1/2 grains of corrosive sublimate. The younger children took twenty times, and the eldest sixty times the maximum adult dose. None of the sufferers were seen until several hours after taking the poison, but through the very energetic work of the physicians the lives of all were saved. (This incident only serves to emphasize the necessity for manufacturers, and druggists as well, labeling articles of a poisonous nature sold or passed out to the public by them, in a distinctive and specific manner. In view of the general lax observance of poison laws, and the indiscriminate sale of poisons to the public, the deadly nature of poisonous substances like this one should be made so plain and emphatic that "he who runs may read."—Ed.).

LONDON LETTER.

The present year has now not very much longer to run, and all are doing their best to swell the receipts for the remaining period so as to make the year's sales as heavy as possible, before a new folio is commenced under the yet unfamiliar heading of "1884." It seems almost incredible that we are on the verge of another year, as on looking back over the matters which have been accomplished during 1883, there does not appear to be an adequate amount of results, for the corresponding trouble which has been taken by many to better their positions. However, there is some, although not much, consolation in the saying that things might have been much worse.

At this time of writing there is a considerable amount of commerce going on, and the hope is that the briskness will run on into the coming year, and thus inaugurate the new year with some encouragement to those who engage in commerce.

In addition to better trade during the past four weeks, there has been much outside talk which has been of great interest to the drug fraternity, and if things turn out as they appear to be tending, the atmosphere will be greatly purified, and some of those disgusting nostrums removed from the face, not of the earth, but from the druggists' counters, where they have found room, much against the proprietors' desires; but one cannot get one's own way even in these things, where fraud is stamped on the article itself.

The government has been aroused to the fact that the public are being victimized by the unscrupulous dealers in patent medicines who pain off the so-called remedies for certain diseases knowing that nothing but disappointment can ensue, and it is earnestly to be hoped that there will be a stampede of those abominations, which serve to destroy the druggist's trade in legitimate articles of his own manufacture.

The electric belt business alluded to last month has been placed in the hands of the public receiver, and the manager has appeared before the metropolitan magistrates several times on adjournments for his making and vending goods which are alleged to be worthless for the purposes for which they are recommended. The commendable action of the public prosecutor has been followed in an unexpected manner by many who trade on the credulity of the masses shutting up their places of deception and decamping, although the smallness of their operations would have kept them clear of the minions of the law. In the shape of gentlemen clad in the orthodox blue habiliments, armed with a warrant for the arrest of the delinquents. Some of the proprietary medicine people have had a consultation as to what should be done, as there can be no doubt that the result of the electric belt trial will have some effect on this department of money-making—it cannot be called business. The opinion of an eminent Q. C. (queen's counsel a legal dignitary high up in the legal profession) who has been consulted from time to time in causes involving proprietary rights as to trade-marks in connection with those remedies alluded to, states that the lot, in the future, of those engaged in this traffic is by no means an enviable one. The subject has been dis-

cussed from time to time by many uninterested people, and as a neutral opinion in this kind of matter is of great value, it would seem that the vast majority of the educated classes are looking for some legislation that will successfully cope with the very shocking results which in many cases follow the regular use of the remedies which are supposed to be a panacea for all the ills of this mortal life. The actions of the powers that be have been tardy, but there may be the excuse of ignorance on the subject, for even reputable medical men have been hoodwinked into bestowing testimonials on the same goods which are now being run down. How the medical men in question could have become a party to influencing the sale of any article which is built up on the methods of degrading the ability of the medical profession, is, to say the least of it, inexplicable; but there can be little doubt that some sort of underhand ruse must have been brought into requisition to effect the purpose of the advertisers.

As indicated at the commencement of this letter, business is, all round, in a better condition than it has been for several weeks, and after all the holiday season will not be without its stress of patrons. Better late than never is a time-honored adage, and while modern merchant adventurers prefer to have the good times forever with them, they have sufficient good sense to admit that it is as well to submit to the inevitable. This season the people have been longer than usual in making their Christmas purchases, but so far the amount the respective persons are spending seems to be not less than previous years, and of one thing there is no doubt, they will get better value for their money this season than ever they got before. The choice of goods at small prices is exceptionally large and unique, and there can be no excuse for any one refraining from giving a present on account of expense or want of articles to select from, as there are articles which cannot but please every variety of taste.

The large stores in the great towns bring to bear at this time of the year a system of advertising in the papers of the small towns, with the object of getting hold of the mail order trade, but this year they do not seem to be in any better position to do this advantageously than the local druggists themselves. This shows that the local men, having foreseen the tactics of the large people, they framed their prices to compete, and it also shows that they must have bought on a larger scale than hitherto to enable them to get the bottom prices; it is highly improbable that they would sell at a loss, even for the sake of gaining publicity, as the drug trade is not one in which you can throw away very much in the hope of bringing in greater returns. This certainly has the desired effect in many classes of business, but then these cannot be regarded as depending on their merits; the drug trade can be truthfully said to be the most steady-going business there is in existence.

The local advertising by the local druggists is, this year, deserving of praise, and the wish is that it will bring in what is most desired—a godly share of the currency, which at this season of the year does not usually belle its name by remaining in one person's hands, but which, as a rule, circulates pretty freely,

and thereby gives most people a chance to get hold of a little of the very useful commodity.

The happy hunting ground of the servants of the Pharmaceutical Society during the last few weeks has been the rural districts of Scotland, where many convictions have been obtained. It is to be feared that the society are not discriminating freely enough as to cases to take up, but as a matter of fact, they are doing only what is right in bringing every contravention of the various acts before the proper authorities. But the odium of a prosecution very often attaches to the local druggist, and accordingly he suffers, as the public sympathy goes with the person who seems to be injured. The following cutting from a Scottish paper will show how these matters are taken:

"Four cases under the pharmacy acts of 1852 and 1868 were disposed of in the sheriff court, Linnthgow, to-day. Fines of one shilling, with one pound expenses were imposed on a grocer and an ironmonger for selling sheep-dip containing arsenic. It seemed a pity, said the sheriff, that prosecutions of this kind were intrusted to a society which did not do its duty, because it was a notorious fact that these poisons had been sold openly by grocers, and no action taken until suddenly the society made a jump upon them."

At the same court a druggist's unqualified assistant was fined £2s for selling two quantities of poison to the secretary of the North British branch of the Pharmaceutical Society. A grocer was charged with selling a bottle of chlorodyne, but was discharged. From these four cases it would appear to all sensible people that the society in question made no distinction between any trade so long as they were found to be infringing the laws governing the respective sales.

A spirit has taken place in both the wholesale and manufacturing departments of the drug business, and orders are coming in pretty freely from all sources. The staple goods are, of course, occupying the greater part of attention, as the weather, as usual, is rendering it necessary for large numbers of the populace to have recourse to the many cough preparations, according to their choice, and these are productive of much profit to the retailer. The latter, as a rule, finds it more beneficial to buy these remedies ready made from the manufacturing druggists, as the demand is large, and the latter having all the proper facilities for their speedy and effectual manufacture, a better article is obtained, and the price is not out of the way.

The sales at auction are beginning to be less frequented, and the reasons are the same as in former times, the principal one being, the principals are occupied the most of the time at their respective offices in superintending their Christmas trade, which requires a good deal of looking after, so as to give satisfaction to their patrons, who are inclined to be fastidious at this particular season of the year.

The Governor of Georgia has signed an amendment to the pharmacy law which restores the old fee and does away with the annual renewal fees. Renewal fees were burdensome, and fully 85 per cent of the druggists in that state favored the amendment.



WILLIAM R. WARNER & COMPANY

The founder and present head of this pharmaceutical manufacturing house of Philadelphia, is William R. Warner, and it is to his efforts in raising the manufacture of medicines to the highest degree of mechanical and scientific perfection, coupled with peculiar executive talent, that its great success has been due. Mr. Warner was born in Maryland in 1836, of parents of notable ancestry, through both his father and mother tracing relationship from well known English families, and close connection with prominent figures in the early history of this country. He received his education at a country school, later attending the Easton Academy, Maryland, but he soon found it necessary to labor for his support and entered on the duties of drug store apprentice in Easton. His spare time was devoted to study, particularly natural history and science, and studies of this character have been his pleasure through-

out his life. He graduated from the Philadelphia College of Pharmacy in 1856, and then followed the retail drug business in Philadelphia for some years, keeping up active connection with the college and local professional associations. In 1866 he engaged in the wholesale drug business at 154 North Third street, ten years later removing to 1228 Market street. These premises still serve for offices and sales-rooms, but the manufacturing branch had grown to such proportions that, a few years ago, a handsome seven story building was erected on Wallace street for its accommodation.

Mr. Warner has had as his associate for a number of years, his eldest son, William R. Warner, Jr., whose experience and training in his father's business have been of a character to make him an efficient and valuable aide.

The house of William R. Warner & Co.

started from small beginnings, but is now one of the most enterprising and largest manufacturers of pharmaceutical products in America. It was a pioneer in the manufacture of sugar-coated pills and various other standard preparations, and has won a leading position through the skill and care exerted in its manufacturing processes, the reliability of its products and successful management.

The house manufactures all the standard lines of pharmaceuticals and a number of well known specialties. Agencies are maintained in London and Australia, and its manufactures are to be found throughout the world. Its exhibits at various world's fairs have secured many awards for excellence, and the beauty of its products invariably elicits attention and admiration. It enjoys to a marked degree the confidence of physicians and the drug trade.

TRADE COMMENT.

W. C. Bell, for the past year manager of the Era's New York office, will hereafter represent Solon Palmer as traveling salesman in Michigan, Wisconsin and Minnesota. Mr. Bell carries with him the best wishes of the Era for success in his new position.

Asbestos soap is one of the latest candidates for the favor of the unwashed.

The greatest events of an age are its best thought. It is the nature of thought to find its way into action.

Ten thousand pounds of ginseng were recently lost by the wreck of a vessel bound from the United States to China.

There are over 60,000 coconut trees in Florida and their fruit is nearly all sent to the New York market.

The town of Kuttawa, Kentucky, as might be expected, boasts of an advertising cut-rate drug firm.

Formerly, when great fortunes were only made in war, war was a business; but now, when great fortunes are only made by business, business is war.

A recent shipment of crude camphor received at the refinery at Rumney, N. H., was found to be largely adulterated with common salt.

The stock of gum tragacanth held in warehouse in London on December 1st, was nearly twice as large as at the same time last year.

During the year ending June 30, 1893, the imports of cocoa were 24,460,330 pounds, the exports were 1,483,167 pounds, showing a home consumption of 22,972,158 pounds.

The average value of imported cork wood for the five years preceding 1893 was \$991,745. During nine months of 1893 the valuation reached \$1,360,250, a decided increase over any previous year.

Recent experiments by navigators have demonstrated that soap suds is just as effectual in calming violent waves during a storm as oil and its cheapness is quite an argument in favor of its use.

The Hot Springs city council has adopted an ordinance that drummers who solicit patronage for local physicians must hereafter wear a numbered tag in accordance with the law.

It is reported that a lot of 7,500 pounds of Angostura Tonka beans which have been in the hands of a New York importer for several months are to be shipped to Hamburg.

California has entered the China trade with quicksilver. A shipment of 1,000 flasks worth \$40 per flask was made from San Francisco to Hong Kong recently. This territory has heretofore been supplied by English dealers.

The shipments of castle soap (Conti's) from Leghorn to the United States during November last were 3,300 boxes, the shipments for the same month last year being 6,120 boxes. The total shipments for 11 months of 1893 amounted to 33,035 boxes, against 48,635 boxes during same period of 1892.

Customs duties for the five months ending November 30 show a decrease of \$25,000,000 as compared with a corresponding period of 1892. During the month of November, 1893, the collections amounted to a little over \$10,000,000 compared with \$17,000,000 for November, 1892.

The coin controlled or nickel-in-the-shot machine for the distribution of perfumes is, according to La Nature, receiving considerable attention in Paris, and the municipal council is studying the propriety of employing these machines for the distribution of disinfectants and antiseptics.

"A pharmaceutical chemist with excellent testimonials, will give his services for board, residence and clothes," is the way an advertisement reads in a recent issue of a Sydney, Australia, paper. The reports which have reached us as to depression in trade during the last year in Australia must be authentic.

Of the many things which are included among the accoutrements of the bicycle rider the latest is the "Kl-y-l," an apparatus somewhat similar to a bulb syringe, which is filled with dilute aqua ammonia. It is used as a means of teaching the bicycle chasing dog to remain in his kennel while there are any wheelmen in his neighborhood.

The west coast of Africa produces an enormous crop of peanuts, Marcellites alone using 10,000,000 bushels a year, while many other millions of bushels go to London, Berlin and other markets. This product is largely used in the manufacture of chocolate (?) and of peanut oil. Very large quantities are grown in India and Brazil, but find principally a home market.

The sympathy of the people of the United States can now be extended to the unfortunate people of West Australia who are now experiencing trouble with their tariff. A bill is under consideration which raises the duty on nearly all goods handled by druggists. Even scientific instruments which are now free will have to pay 10 per cent under the new bill.

An indorser of a note should remember that he is held for the payment of the amount in full, principal and interest. If the maker of the note, through misfortune, mismanagement, or rascality, fails to pay it. The indorser assumes all this responsibility, with no voice in the management in the business and no share in the profits of the maker's transactions, if they prove profitable.

An advertiser must be a student of human nature and human needs, says Chas. Austin Bates in Printers' Ink. He must think out all the things which make his goods desirable, and then use one point at a time and shoot straight at the mark. If he uses all his points in one shot they will scatter too much. You can hit more birds with a shotgun than with a rifle, but may be not hard enough to hurt. Those you hit with a rifle ball you carry home in your bag.

"A full line of dry goods" appeals to the needs of a great many people; "12½c gingham at 8c" strikes comparatively few, but it is more effective. If a medicine will cure corns and headache and consumption, better give it to people in three doses.

CHEMICAL INDUSTRY OF THE UNITED STATES.

As our present social and financial conditions furnish strong incentives for the study of political economy and questions affecting our prosperity, we publish below some statistics obtained from the Bureau having in charge the work of the eleventh census. These figures are of a character which justifies a certain amount of national self-gratulation and they furnish much food for reflection, and may incidentally furnish ammunition to those who feel combative whenever the subjects of labor and capital are mentioned.

Number of establishments (a).....	1,656
Capital.....	\$168,462,914
Average number of employes (b).....	43,701
Total wages.....	\$ 25,321,077
Total officers and clerks.....	5,353
Total officers and clerks' wages.....	7,464,390
All other employes.....	37,348
All other employes' wages.....	17,856,811
Cost of materials used.....	106,522,980
Total value of products.....	\$177,811,822
(a.) This statement includes in addition to the manufacture of chemicals proper, the manufacture of paints, varnish, fertilizers, dye stuffs and extracts; celluloid; high explosives; gun powder; honp, ivory and lamp black; oil, resin; and oil, essential.	
(b.) This is a general average for all classes of employes, including officers, firm members and clerks.	

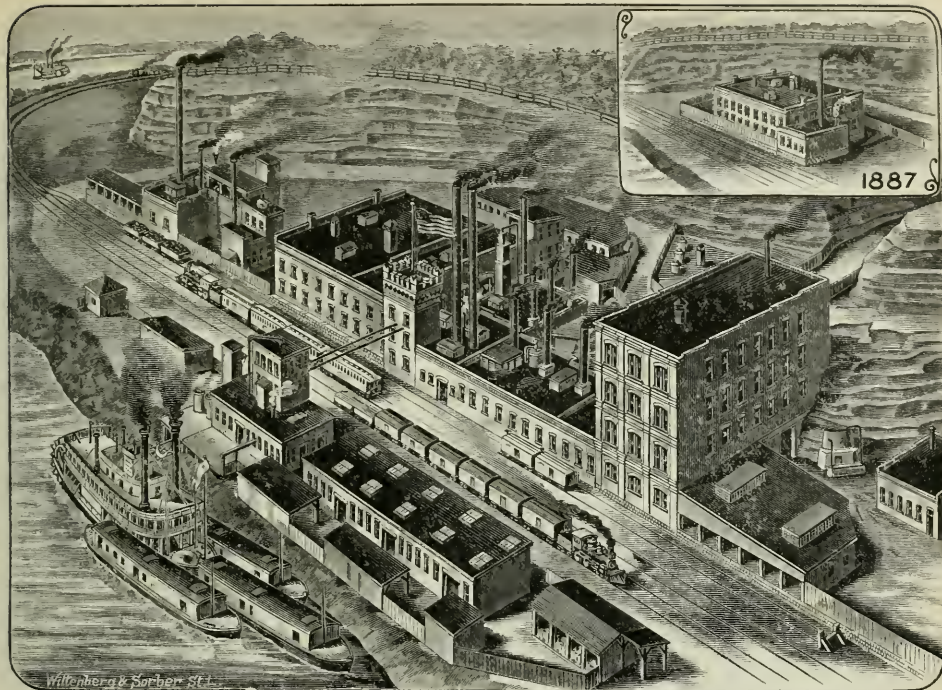
THE UNITED STATES CAPSULE COMPANY.

For the past two or three months the trade has been full of rumors in regard to a combination of manufacturers of empty capsules, and on December 1, 1893, there were filed at Trenton, N. J., articles of incorporation of the United States Capsule Co. The incorporators are Lincoln B. Palmer, of Newark, N. J., Robert H. McCutcheon, of New York City, and Walter Barnes, of Brooklyn, N. Y. Total capital stock \$70,000, in 700 shares of \$100 each. Capital paid in to commence \$1,000, subscribed equally by the incorporators. The corporation to continue for fifty years, to manufacture and deal in capsules, pills and patent medicines.

As is often the case, the figures and names of incorporators above are evidently intended for preliminary purposes only, as reports which have been filed now show that the Merz Capsule Company, the Warren Capsule Company, and the Michigan Capsule Company, of Detroit, and the National Capsule Co., of Indianapolis, have all assigned their business to the United States Capsule Co. We are advised that the headquarters of the company will be in Detroit, and that the permanent organization and election of officers will take place early in January.

These manufacturers claim that this combination was necessary to prevent ruinous competition. Prices had been reduced to \$5.00, and in some cases to \$4.50 per gross, which they state is below the actual cost of production. Prices have now been advanced by these manufacturers to \$8.00 and upwards per gross, according to the quantity and brand. As will be noticed from the above, H. Planter & Son and Dundas Dick & Co., of New York; the Hall Capsule Co., of Cincinnati, and F. A. Hubel, of Detroit (the latter makes the "F. D. & Co." brand of capsules), are not members of this new organization.

Among the articles sought to be taxed through amended tariff laws in New Zealand, is saccharine, which is to bear a duty of "1-2d per pound as sugar." Experts claim that this rate of duty will probably yield the colony a revenue of one or two shillings per year.



WORKS OF THE HERF & FRERICHS CHEMICAL CO., ST. LOUIS, MO., 1887 and 1903.

The above cut illustrates the remarkable growth of the works of the Herf & Frerichs Chemical Co., St. Louis, Mo., who, in the short space of seven years, have succeeded in building up from a modest beginning a manufacturing establishment which now ranks among the foremost of its kind in the United States. In the early part of 1887 they commenced building on a piece of property of 12 acres, situated in the southern part of the city on the Iron Mountain Railroad and fronting the Mississippi River. The place appeared eminently adapted for the location of chemical works, a side track connecting them with the railroad, and the river giving them facilities for unloading, right at the factory, barges with raw materials from abroad and affording at the same time an abundant and cheap supply of water for the works. The original two-story factory building had a frontage of 100 feet and a depth of 80 feet, and one boiler of 80-horse power supplied the steam; in the fall of 1887 the plant was in operation and at the beginning of 1888 it had produced a sufficient stock of goods to permit the firm entering the market. Since that time the works have been steadily increased and now, six years later, they have grown to the dimensions shown in the cut.

From a small two-story building the works have developed into a manufacturing establishment of 800 feet in length and an average depth of 200 feet, covering, on both sides of the railroad and along the river bank, an area equivalent

to two large city blocks. Six boilers, of an aggregate capacity of 500 horse-power, supply the steam; electric light and gas are produced on the premises, their water works furnish 16,000 gallons river water per hour, and a further supply is derived from the city mains. An engine of 50 horse-power provides the power and transmits it by one continuous line shaft of 400 feet throughout the entire works and from this main line other shafts branch off, making the total length of the shaftings used in the establishment nearly 1,000 feet. A system of steam pipes leads steam from the boilers to all parts of the works, and a system of pipes for river, city and distilled water gives an ample supply of water wherever it is required. The firm have their own machine and carpenter shops and employ permanently a staff of machinists, blacksmiths, pipe fitters, copper-smiths, carpenters, lead burners and other mechanics, with whose assistance they build or finish most of their apparatus and keep the entire plant in the best state of repair. By endeavoring to have the largest part of their manufacturing work done by the most complete machinery which can be devised, the seventy skilled men who are now employed in their establishment are enabled to produce a more uniformly excellent quality and a far larger quantity of chemicals than would be possible without the help of such perfect apparatus. Their facilities for the manufacture of salicylic acid and acetanilid are unsurpassed, and their ammonia works

are among the largest in the country. Their arrangements for the manufacture of sulphuric ethers of a uniformly high standard have been so successful that it would be difficult to improve on them. Experienced chemists and engineers are in charge of the various departments of the works, and in view of the progressive spirit which has characterized everything this firm have done, it is safe to say that they are now better than ever prepared to supply their friends to the best advantage and will continue to develop their business as energetically as they evidently have done hitherto.

One of the points to which small dealers in wallpaper pay too little attention, remarks Interior Decorator, is the art of making the interiors of their stores something more than a mere convenient means for selling goods. Some of the most successful handlers of wallpaper, who are brought into direct touch with the public, have attributed no small part of their increased sales to attention to the wall hangings and decorations of their own stores. This gives the purchaser a feeling of respect for the class of goods he is about to examine, and conveys as well some idea of how those materials appear in use which he will otherwise see only in the sample. If good taste and judgment have been displayed in carrying out the decoration, they will afford a capital advertisement of the capacity of the establishment to repeat the success elsewhere.

ADVERTISING CUTTERS.

The Committee on Proprietary Goods of the N. W. D. A. has issued the list given below during the interval which must elapse before completion of the list of dealers from whom proprietors can accept orders at a discount (as provided in the Detroit Plan), this list of cutters will serve for guidance.

Albany, N. Y.—Brad's Drug Store (S. C. Bradt & Son), L. H. Gann, John G. Myers, Wm. Sautter, Wm. M. Whitney & Co., Charles H. Wiberley.

Allentown, Pa.—American Medicine Co. (Edwold T. Pragle, manager).

Altoona, Pa.—Baltzell Bros.

Amazonia, Mo.—M. Scudder & Co.

Angel's Camp, Cal.—J. H. Condy, Mrs. J. S. Crawford.

Asbury Park, N. J.—Williams' Pharmacy, 159-161 Main Street.

Astoria, Ore.—Parker & Hanson.

Atlanta, Ga.—D. S. Goldsmith & Co., Jacobs' Pharmacy (Jos. Jacobs). This concern has recently ordered under name of D. S. Goldsmith & Co.

Atlantic City, N. J.—C. D. Johnson & Co. (The People's Drug Store).

Attala, Ala.—P. L. Walker.

Aubrey, Tex.—Dr. E. M. Bates.

Augusta, Ga.—Stothart, McMillan & Co.

Aurora, Ind.—W. B. McCreary (or George McCreary).

Baltimore, Md.—Herb Medical Co. (J. S. Hopkins), J. S. Hopkins (Herb Med. Co.), Geo. Johnson & Co., 430 S. Broadway, F. C. Jones, 100 N. Gilmore, J. F. Nydegger (supplies Wm. H. Read), Bertier McClure, F. J. Grote, Posner Bros., 215-219 W. Lexington Street, Wm. H. Read.

Beaver Crossing, Neb.—DeWitt Enger.

Big Rapids, Mich.—F. Fairman.

Bonnleville, Ky.—Stamp & Co.

Boston, Mass.—Houghton & Dutton (see Colorado Springs, Col., Dutton & Co.), C. P. Jaynes & Co., E. F. Jaynes & Co., H. A. Jaynes & Co., J. W. F. Wilson, Jr., C. E. Woodward, H. E. Woodward, W. H. Zinn.

Bozeman, Mont.—R. F. May.

Broadheadsville, Pa.—Steward Lawfer.

Brooklyn, N. Y.—Bolton Drug Co., Brooklyn Drug Co., C. J. Hazzard, Myrtle Ave., Cor. Classon Ave., B. H. Livingston (Livingston's Drug Store), 231 Grand Street; Maas's Pharmacy.

Brownville, Neb.—A. A. McIninch & Son.

Burlington (West), Ia.—Wm. H. Gahegan & Son.

Buffalo, N. Y.—Faxon, Williams & Faxon (see Lockport, N. Y.).

Calais, Me.—C. E. McIninch.

Camden, Tenn.—McDaniel & Hall.

Carrollton, Ga.—M. P. Watkins.

Centerville, Cal.—J. Magnin (grocer).

Charleston, S. C.—E. A. Hall, Palmetto Pharmacy Co.

Chester, Pa.—J. E. Smith, manager Dr. J. P. Miller's Store.

Chicago, Ill.—A. A. Arend, Bee Hive, Boston Store, Partridge & Netcher (see Kansas City, Mo.), Geo. Catlin (purchases for "The Fair"), Chicago Drug Exchange, H. R. Eagle & Co., Economical Drug Co., C. H. McConnell, President, Oscar M. Zesch, Secretary, James M. Stimpson, Treasurer, Flsh, Joseph & Co., M. D. Madigan & Co., 470-472 Ordan Avenue; C. H. McConnell (President Economical Drug Co.), Paris Store, P. T. Ryan & Co., Schlesinger & Mayer, Siegel, Cooper & Co., Jas. M. Stimpson (Treasurer Economical Drug Co.), The Fair (buy goods also in name of Geo. Catlin), The Lead-

er, J. H. Walker & Co., Oscar M. Zesch (Secretary Economical Drug Co.).

Cincinnati, O.—Allen & Co., A. L. Hochmer, City Hall Pharmacy (A. L. Hochmer), Jno. Darragh, Jr., Richmond St. and Central Ave.; W. J. Dawe, M. C. Dow, (said to purchase for Jno. D. Park & Sons Co.), Miss M. C. Dow, 552 W. 5th St.; 282 Race St.; H. Gradel, Hemphill Bros., of Hising Sun, Ind. (Said to purchase goods for A. O. Zwick), E. A. Keeshan, John Keeshan, Koch & Co., Koehler, Allen & Co. (Also Allen & Co.), Jno. C. McCullough, of Lawrenceburgh, Ind. (Said to purchase goods for Jno. D. Park & Sons Co.), John D. Park & Sons Co., A. O. Zwick.

Clarksville, Tenn.—Clarksville Drug Co. (T. A. Thomas, Manager), T. A. Thomas Drug Co.

Clearfield, Pa.—Dr. D. H. Sweeney.

Cleveland, O.—The H. M. Brown Co., Crow & Whitmarsh.

Clinton, Wis.—Church's One-Price Cash Store (H. G. Church).

Cohoes, N. Y.—J. S. Calkins.

Colorado Springs, Col.—Frank Dutton & Co. (See Houghton & Dutton, Boston), Coldwater, Ks.—J. E. Sombart.

Conneaut, O.—E. A. Black (Grocer).

Concordia, Ks.—B. H. McCleekron & Son.

Cynthiana, Ind.—J. L. Blase.

Dayton, O.—James Abbey (Said to supply Jno. D. Park & Sons Co.).

Decatur, Ill.—Harry K. Midkiff (Assignee Ralph Templeton).

Danville, Ill.—New York Store, 23 W. Main Street.

Denison, Tex.—T. Liebrecht, 312 Main Street.

Denver, Col.—The Fair (C. Monash).

Derby Line, Vt.—Flint's New Drug Store (J. T. Flint).

Des Arc, Ark.—J. A. Pettey.

Detroit, Mich.—Brown's Pharmacy Co. (W. J. Brown, Manager), Cut-Rate Patent Medicine Store, 16 Park Place (Dr. H. H. Carnes or Mrs. Carnes, Prop.), C. H. Michell (Grocer), Chas. Moorland & Son.

Diamondale, Mich.—F. A. Merritt.

East Greenwich, R. I.—Green's Prescription Drug Store (also Providence, R. I.).

East Los Angeles, Cal.—J. R. Brossart's Cash Store.

East Worcester, N. Y.—W. Sautter, 8 N. Pearl St., Twiddle Building.

Easton, Pa.—W. T. Wiley, Manager Dr. J. P. Miller's Store.

Eau Claire, Wis.—Cass Drug Co.

Elgin, Ill.—Theo. F. Swan (Springer).

Elkhart, Ind.—Beckley's Pharmacy.

Erie, Pa.—Trask, Prescott & Richardson.

Esparito, Cal.—Levy & Schwab.

Eureka, Cal.—Geo. R. Knott.

Fall River, Mass.—Jno. M. Deane.

Flint, Mich.—C. B. Flanders & Son.

Florence, Tex.—Hobbs & Miller.

Fremont, Neb.—W. J. Davies.

Fresno, Cal.—Dr. J. H. Bassin, Elinsteln & Co., Kutner, Goldstein & Co.

Galesburg, Ill.—Dr. John Kemper.

Gaylord, Minn.—Boreen Swan.

Geneva, N. Y.—Barkman & Meyers, Corner Drug Store.

Girard, Ks.—L. H. Cushmanberry & Co.

Goldsboro, N. C.—W. H. Finlayson, J. H. Powell, Spicer's Drug Store (J. D. Spicer).

Gonzales, Tex.—Harnden Bros.

Grand Rapids, Mich.—Morse's Department Store.

Greenfield, Mass.—Geo. Hunter, School Street.

Grover, Pa.—S. S. Vermilya.

Hallowell, Me.—C. H. Brann, Henry D. Clearwater.

Hampton C. H., S. C.—J. S. Dewitt.

Harrisburg, Pa.—M. J. Eckard (buys for Kennedy), F. K. Hensel (purchases goods for W. H. Kennedy), W. H. Kennedy (purchases goods in name of F. K. Hensel), J. D. Shields & Co. (buy for Kennedy).

Hartford, Conn.—Brown, Thompson & Co. (see "Scotch Syndicate," N. Y.), Hartford Drug Co.

Hudson, Mich.—H. C. Hall.

Hyannis, Neb.—John P. Sibbitt (Hotel and Saloon).

Iilon, N. Y.—Seward Merry, Agent, Otsego Street.

Indianapolis, Ind.—Julius D. Pearson.

Jacksonville, Fla.—W. A. Dell.

Kansas City, Mo.—Bullene, Moore, Emery & Co., Partridge & Netcher, 1109-1111 Main Street (see "Isoton Store," Chicago).

Kuttawa, Ky.—Hargan & Son.

Lancaster, Pa.—Jno. Black (said to purchase for cutters), J. C. Houghton & Co., 20 and 22 West King St.; Samuel E. Grabbill, Duke and Vine Streets.

Lawrence, Mass.—W. Oswald & Co.

Lawrenceburgh, Ind.—Jno. C. McCullough (said to purchase goods for Jno. D. Park & Sons Co., Cincinnati).

Lockport, N. Y.—Yerxa's (Faxon, Williams & Faxon) (see Buffalo).

Los Angeles, Cal.—J. R. Brossart's Cash Store, East Los Angeles; W. E. Chamberlain, The Angel City Chemical Co., The Hamburger Co.

Mt. Vernon, Ill.—C. D. Cook.

Madison, Cal.—A. Harris.

Marion, Ind.—L. J. Sterrett & Co.

Manistee, Mich.—H. B. Larsen (Department Store).

Mason City, Ill.—Porter & Porter.

Millville, N. J.—J. Kirkle.

Millwaukee, Wis.—Frank A. Lappen & Co.

Minneapolis, Minn.—Dickinson's Bazaar, Donaldson's Glass Block (Wm. Donaldson & Co.), Minneapolis Dry Goods Co., S. E. Olson & Co.

Madison, Cal.—A. Harris.

Madison, Wis.—The People's Bread Co. (Alex. Findlay, Manager), 201-203 King Street.

Memphis, Tenn.—A. G. Brown, Jas. S. Robinson, Masonic Temple; J. C. Stevenson, Titcomb & McCain (J. E. Stevenson, successor).

Meriden, Conn.—M. W. Sherwood & Co.

Montello, Wis.—A. Kehlet.

Moran, Ks.—Dr. D. Gwin (or Dr. D. Givin).

Morris, Ill.—J. E. Dawson.

Nashua, N. H.—G. W. Shaw.

Newark, N. J.—R. P. Bradner, Crescent Court, 629 and 631 Broad Street; P. J. Garrigan, Lewis Bros. & Culler, 238 Market Street; Chas. W. Menk, 106 Market Street; E. R. Petty, Seidler Drug Co., 21 Ferry Street; W. H. Stanford, 256 Mulberry Street.

New Haven, Conn.—Wm. Neely & Co.

Newpoint, Ind.—Metz & Putman (Grocers).

New Orleans, La.—Bogel Drug Co. (said to purchase for Dr. R. Sauvage, American Drug Store), H. Homberg, F. W. Kinberger (Grocer), Dr. Laplace (buys for American Drug Store), Dr. R. Sauvage (American Drug Store), Vermont Chemical Co. (purchases for Dr. R. Sauvage, American Drug Store), has no legitimate use for patents.

New York, N. Y.—Adams & Co., Bloom-
ingdale Bros., Brown, Thomson & Co., I.
C. Bryant, 51 Bank Street; Ehrick Bros.,
L. A. Frasier, Otto Frohwin, J. A.
Hearn & Son, Hegeman Corporation, 196
and 218 Broadway; J. Jungmann, George
Kneuper (City Hall Pharmacy), 263
Broadway; Lord & Taylor, R. H. Macy
& Co., W. G. Moffit, 60 Fulton Street;
Ridley & Sons, Grand, Orchard and Allen
Sts.; W. S. Rockey, 8th Ave. and 35th St.
Wm. B. Riker & Son, 353 Sixth Avenue,
Scotch Syndicate, Jno. Simpson, Simpson,
Crawford & Simpson, Stein Bros., Syndi-
cate Trading Co., 129 Franklin Street;
Terhune's, Eighth Ave., cor. 126th Street;
The New York German Apothecaries' Asso-
ciation, Wm. Wilson.

Norristown, Pa.—Chas. A. Fageley.
Norfolk, Va.—E. F. Weisel.
North Plainfield, N. J.—L. A. Frasier.
Oakdale, Cal.—Geo. Grierson, Rodden
Bros.

Oakland, Cal.—F. C. Churchill, D. W.
Kirkland, M. Trowbridge.
Omaha, Neb.—Bell Department Store,
W. R. Bennett Co., Boston Department
Store, Hayden Bros (Department Store).
Oneida, N. Y.—Hernan & Campbell.
Paterson, N. J.—Kent's Drug Store
(Benj. Kent), 236 Main St., 159 Main St.
Pawtucket, R. I.—Capwell's Pharmacy,
43 Broad Street; Wood's Popular Drug
Store, 285 Main Street.

Philadelphia, Pa.—Geo. D. Blomer, 6th
and Dickinson Streets; Geo. B. Evans, C.
G. A. Loder, 1539 Chestnut Street; Jos.
McKee, 402 Lancaster Ave.; Dr. J. P.
Miller, Miller Drug Co., having branch
stores as follows: Baltimore, Md., man-
aged by J. S. Hopkins and Herb Med.
Co.; Chester, Pa., managed by J. B.
Smith; Easton, Pa., managed by W. T.
Wiley; Harrisburg, Pa., managed by W.
H. Kennedy; Reading, Pa., managed by
Rankin Grissinger; Trenton, N. J., man-
aged by J. K. Wiley; Wilmington, Del.,
managed by J. Fletcher McLaughlin;
D. F. Schull & Co., 328 Market Street;
William T. Totten, 672 North Tenth Street
C. H. Wagener, 4th and Berks Streets;
H. K. Wampler & Co. (supplies cutters).

Pittsburgh, Pa.—Fleishman & Co. (De-
partment Stores), Markell Bros., Branch
Stores; Connellsville, Pa., New Haven,
Pa., Monongahela City, Pa.; Martsoft's
Pharmacy.

Pittsfield, Mass.—Wm. H. Currier &
Co., 8 North Street.
Portland, Ore.—F. A. Jones.
Potsdam, N. Y.—C. M. Peck & Sons.
Providence, R. I.—S. J. Briggs & Co.,
209-211 Atwell's Ave.; Green's Prescrip-
tion Drug Store, No. 1 Westminster St.
(also East Greenwich, R. I.), Hall &
Lyon (succeeding Howe & Carr), Leith
& Danforth, 163 Westminster Street; F.
L. Lathrop, 73 Vestminster St., 555 Eddy
St.; H. J. Watson, Cor. Aborn and Foun-
tain Streets.

Quincy, Mich.—C. W. Bennett.
Rock Island, Ill.—Marshall & Fisher, 2d
Ave. and 19th St.
Reading, Pa.—Rankin Grissinger.
Rising Sun, Ind.—Hemphill Bros. (sinc-
ed to purchase for A. O. Zwick, of Chain-
natl), George McAroy (or W. B. McAroy).
Rochester, N. Y.—Sibley, Lindsey &
Curr (Dry Goods).
Sacramento, Cal.—American Cash Store,
Capitol Store, Jost & Weber, Weinstock
& Lubin (Mechanic's Store).
Selma, Ala.—Day & Slack.
St. Louis, Mo.—E. B. Bribach, 4th and
Stein Streets; T. & E. Catlin, A. H. Cou-

sens, 600 Market Street; H. L. Doering,
10th and Cass Ave.; H. Fuller, 2247 Clark
Ave.; Jas. Gibson, Hall Medicine Co. (J.
F. Hall), Jos. Hilby, Judge & Dolph
Pharm. Co., Koch & Kempff, J. A. Land,
B. J. Ludwig, Raboteau & Co. (also buy
in the name of Jas. Gibson), Rice, Stix
& Co., M. Schulz (Millinery), 2050 S. Broad-
way, M. Shepard, Wm. H. Shepard, 320
N. Second Street; H. H. Vogt, Blair and
Cass Avenues; Geo. Wagner, Wolf-Wil-
son Drug Co.

St. Paul, Minn.—Samuel G. Dickinson,
(Glass Block), W. H. Elsinger & Co. (The
People's Golden Rule Store), Schuneman
& Evans.

San Bernardino, Cal.—Ham Bros.
San Francisco, Cal.—Cerr, Schloss &
Co., C. Cline, Jno. Doe, Eureka Bazaar
(F. D. Bradley), Hamburger Co., D. W.
Kirkland R. E. Miller, John Otten (Grocer-
er), 1534 Golden Gate Ave.; Owl Drug Co.,
Radovich Bros (Liquors), 29 Geary St.;
Rutledge & Nixon (Grocers), 206 Sixth St.;
Smith's Cash Store (the Smith Bros.,
Grocers), J. D. P. Teller (Broker), 24 Cal-
ifornia St.; "The Maze" (Department
Store), F. J. Tormey, M. Trowbridge.

Severy, Kas.—Simon Lybarger.
South Haven, Mich.—J. W. Kenney.
Springfield, Ill.—Geo. S. Connelly & Co.
Springfield, Mass.—Forbes & Wallace.
Taunton, Mass.—Cobb, Bates & Yerxa.
Taylor, Tex.—Cook Drug & Jewelry Co.
Tehachapi, Cal.—I. Asher (General
Store).

Trenton, N. J.—Geo. N. Thomas, J. K.
Wiley, Manager Dr. J. P. Miller's Store.
Troy, N. Y.—Drake & Moffitt, 3 Second
St., Mansion House Block, Chas. H. Wiber-
lerly.

Ukiah, Cal.—W. A. Hoffman.
Utica, N. Y.—Caroline P. Hackett (Mrs.
W. H.), J. M. & C. B. Crouse, Jno. O.
Jones & Sons.

Vallejo, Cal.—S. Dannenbaum.
Waltham, Mass.—Hall & Lyon.
Washington, D. C.—James O'Donnell.
West Burlington, Ia.—M. H. Gahegan
& Son.

Williamsport, Pa.—M. A. Laverty, Peo-
ple's Medicine Co. (J. M. Hadley).
Wilmington, Del.—J. Fletcher McLaugh-
lin, Manager Dr. J. P. Miller's Store.

Wilson, N. C.—Doane Herring, Nash
Street.

Winston, Mo.—J. M. Friede & Co.
Woodbury, N. J.—Robbins' Pharmacy.
Worcester, Mass.—Maynard's Pharmacia
(W. M. Maynard), 36 Main Street; P.
B. Moriarty & Co., 125 Park Street.
Woodstown, N. J.—E. B. Humphreys &
Co.

York, Pa.—Jos. H. Kirkle.

Ten years ago, when the internal re-
venue tax on playing cards was five cents
per pack, the consumption for the year
prior to July 1st, 1883 (when the tax was
taken off), was a little over 3,000,000 packs,
yielding a revenue of about \$150,000. The
conditions of this industry have changed so
within the last ten years, that the
yearly production has grown to nearly
47,500,000 packs, and it is estimated that
of this number fully 30,000,000 packs are
the very cheapest cards, retailing for five
cents per pack. These figures furnish the
basis for an argument that the proposed
tax of ten cents per pack will prohibit
entirely the manufacture of the cheaper
grades, while it is pointed out that a low
tax, say one cent per pack, would not
interfere with their manufacture, but
would yield the government considerable re-
venue.

THE LANOLINE PATENT.

A case involving the infringement of the
patent on Lanoline, and which attracted more
than usual attention, not only on
account of the great interests involved,
but by reason of the eminence of the ex-
perts who gave testimony, was recently
tried before Justice Romer in the High
Court of Justice, London, Eng. The parties
to the suit were Benno Jaffe and
Darmstaedter Lanolin Fabrik, Berlin,
plaintiffs, and J. Richardson & Co., Limited,
Leicester, defendants. The action
was brought to restrain the defendants
from manufacturing and selling "Anas-
palin," a mixture of purified wool fat
and vaseline, the claim being that this
article was an infringement upon the pro-
duct of Liebreich's patented process. By
Liebreich's method wool fat extracted
from the waste liquors of wool-washing
works by means of a centrifugal machine
which separates the emulsified cholesterol
in fat from the dirt and soapy liquor with
which it is mixed, is purified by means of
an alkali and methylated spirit or ether,
and mixed with water to produce lanoline.
The defendants quoted from the
writings of Dioscorides and Pliny, and
contended that a formula published by
the former over 2,000 years ago for pre-
paring from sheep's wool, an unguent
called "oesypus," covered the specifica-
tions for making lanoline sufficiently to
render the patent invalid. Prof. Dun-
stan, F. R. S., of the Pharmaceutical So-
ciety of Great Britain, who was called
by the plaintiffs, did not think that
lanoline as known at present could be
made according to Dioscorides' directions,
in which opinion he was supported by
Prof. Dewar, Dr. Passmore, and Dr.
Lauder Brunton, the latter testifying
more particularly from the standpoint of
therapeutics. Prof. Atfield, F. R. S., of
the Pharmaceutical Society of Great
Britain, thought that by the formula of
Dioscorides an ointment very similar to
lanoline could be produced, and that the
omission of directions for using an alkali
for the elimination of the fatty acids
was not of extreme importance, inasmuch
as nearly all of them can be washed out
with water, and, from a therapeutic
standpoint, a certain portion of oleic acid
in combination might be an advantage.
Dr. E. H. Paul also testified for the de-
fendants relative to the constituents of
wool fat, and its admixture with water
and presented samples of wool fat which
had been prepared according to the an-
cient formula. The case was ably con-
tested at all points, the cause of the
plaintiffs being championed by Sir Rich-
ard Webster, ex-attorney-general, while
the interests of the defense were in the
hands of Mr. Aston, Q. C., the eminent
patent lawyer. The decision of the court
is awaited with great interest, as it will
necessarily have considerable force as a
precedent in determining similar questions
of great commercial importance, and may
perhaps, give us an estimate which a
legal mind places upon the conflicting
opinions of experts.

Later advices inform us that this case
was decided in favor of the plaintiffs,
Benno Jaffe & Darmstaedter.

Two billion five hundred million gallons
of wine, equivalent to 15,000,000,000 bottles,
is stated to be the annual production of
Europe. About eight gallons for every man,
woman and child on that continent,

CO-OPERATION AND PROFIT SHARING.*

Without co-operation in some form or other, we are only savages. It is only the savage who has no association, who has not the benefit of co-operation, and we must not forget that all civilized society is essentially a society of co-operation.

In the earlier stages of development the strongest was the master for his own advantage and for the advantage of his favorites. Step by step that stage of civilization has passed away, until we have now a government by and for the people. That is co-operation on the largest possible scale. We all yield some of our rights for the common good. When we come down to smaller affairs in government, to our social arrangements, we find that in associations like this we resign some of our own individual self-seeking for the better advantage of all concerned. This is essentially co-operation.

I should have said in speaking about government that common schools, the cleaning of streets, and many other things whereby we agree to take some of the property of individuals in the shape of taxes for the common good, is essentially co-operation. Thus you see, we have co-operation the sacrifice of individual advantage for the common advantage in our most important surroundings. When we come down to business there are many features in which co-operation is present, that we may not think of.

Of course you are all familiar with the growth of co-operative societies, building associations, trade associations, all of them embodying the co-operative spirit; but there is another class of co-operation, which goes a little deeper into the daily affairs of men, in trade manufacturing, etc. Of that probably most of you know only in a desultory way and that principally by the failures made. The step up to co-operation in business has been laborious and dangerous to those attempting it. There are two classes of business co-operation, one arising entirely from the common people, wanting to start in business for themselves. This is known in co-operative circles and in the world as co-operation proper, in that all members stand on an equal footing, exactly as a stockholder stands in a corporation. I mean that wages and prices are regulated according to the interest that each one has, so that his share is the same as all the rest. Then there is another form of co-operation known as profit-sharing. The proprietors of capital who have already a business established, divide the profits that are made in the business with the men employed, as well as the capital used.

Profit-sharing has been extensively developed in France, and to a considerable extent in this country. Given a corporation which has a business and in which there is a profit, they take part for the capital and pay the usual salaries, wages and expenses as in ordinary business. The management continues the same, salaries and wages the same, and the ordinary rate of interest is charged for the capital—then of what is left there is a division made usually to the wage earners and the capital.

Now I think it may occur to all of you, as a matter of pure business advantage, that in such a method where every per-

son, high or low, becomes interested in the business, profit is better assured. We are all familiar with the fact that many houses break down after having established a very successful business, because one or two of the managing spirits are removed from control by death or otherwise. Then having nothing but ordinary hired men to rely upon, it is a matter of chance merely whether there is any one in the management capable of succeeding and holding it up. But where all have been interested in the profits, there is almost certain to be some who have developed and become thoroughly familiar with the business, and who are able to carry it on when the others leave it. Then I think you will recognize it is much easier to conduct a business where all have something at stake. The management will be better than where it is a question of mere wages. It has long been a custom in firms and corporations to give an interest to leading men, but I want to suggest that it is far more important to interest the rank and file, than it is the captains and lieutenants. It will probably never happen that a man who is capable of being at the head of a large concern could be stimulated to do any more than he would do any way. He has been elevated and promoted because he is possessed of an inherent energy that forces him at all times to do his best, and I think that that class of men would never be any more faithful whether his salary was \$1,000 or \$5,000. But men are not usually possessed of such inherent energy. The great majority of them are practically listless; will do about as little for their wages as they are required and must do in order to hold their places. They have been brought up to having just so much a week paid them; they have no ambition; they do just the work that is assigned them. There is nothing of the speculative idea about them. But give such men at the end of the year a proportion of the profits of the business as above described, and it acts upon them as a stimulus. Every one of them has some almost romantic interest in his work then. He is going to get a sum of money, he does not know how much, and he knows that every other man's work will have the same effect. Now a force consisting of 25 or 500 men, with that incentive all the time before them, it will inevitably put a different spirit into the entire force, and thus, while there may be a dividend paid at the end of the year of 5 or 10 per cent on the wages paid, capital loses nothing. For you will observe that no division is made until capital is at least tolerably well paid, and any division made after that can certainly work no marked injury on capital, and goes a long way toward insuring stability.

There are houses in France employing 500 or 1,000 men who have used this system for fifty years. The Maison Leclaire, of Paris, has been conducted on this plan since 1842, and in this country there are some three or four hundred concerns that are employing this system, most of them having started it during the last four or five years. But the other class of co-operation is far more extensive in its history and in its rate of growth at the present time. I may surprise you when I say that the largest commercial concern in the world, that I have any knowledge of, is the Co-operative Wholesale Society of England, and in speaking

about this I am speaking with absolute accuracy, as it is a matter of official report and of reports that are made every year. This English Co-operative Wholesale Society does an annual business of upwards of fifty-five million. They own and sail six of their own ships. They own the largest shoe factory in the world, equipped with American machinery. They have factories of nearly all the leading staples. Now this co-operative wholesale is, as I take it, as a business man, one of the most peculiar commercial concerns that can be well imagined. It is one from which you may all learn some important lessons. In the first place, they do their business exclusively for cash. They have their own buyers in the leading markets of the world, including one in Chicago and one in New York. They send department buyers to Greece every year to buy whole cargoes of dried fruits. When a customer wants to buy goods from the Wholesale, it makes no difference whether he is rated at a million or less, he must accompany the first order with the money and a copy of his last trial-balance, his rules, etc. After his first order, his credit being satisfactory, he may have one week's time in which to pay his bills.

Now the Co-operative Wholesale does its business with all its ramifications at an expense, including losses, of not quite 2 per cent. Now I think that those of us who squander a great deal of money in traveling men and other wasteful ways, for which there is nothing produced for us or anybody else, will consider this a marvelous association. Here is a business fabulously large, managed by men who have been brought up in it. Large salaries are not paid—the highest salary only being \$2,000—and the entire business is run, as I said before, at an expense of less than 2 per cent. But, of course, there is some explanation necessary to show how they can do business in this inexpensive way. The Wholesale is owned by retail co-operative stores. They are the stockholders and they are the customers. They have their buildings not only at the headquarters in Manchester, but they have warehouses in every important city as distributing centers. At all times they have rather more money than they know what to do with. Money is practically a drug with them. Their trade is uniform and they know about what to count on in their factory production and in their purchases.

The retail stores carry us back a little further. The present plan was initiated in 1844. There had been co-operation before that on quite a different plan. The present plan is to sell at the market price. The older plan was based on a great deal of sentiment, a great deal of religion—very good things in their way—but the people were not quite ready for so perfectly fair and mutual a principle as that of simply distributing their goods between themselves at cost and accumulating nothing, so that when bad times came and Owen, the founder, came to this country, the system went to pieces.

In 1844, twenty-eight weavers from Rockdale, which is close to Manchester, in a period of very hard times and knowing something about Owen's experiment, managed to scrape together \$40, and with that they bought some goods at wholesale, afterward retailing them to themselves without any expense at all; so that after having disposed of their

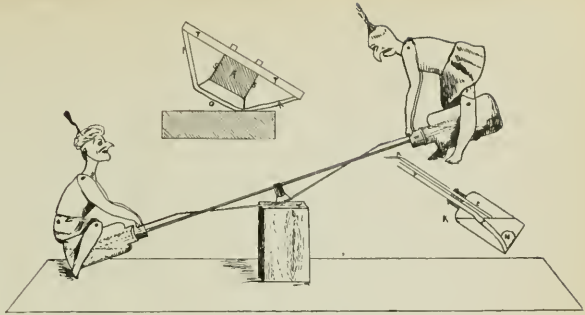
*Abstract from an address delivered before the St. Louis Paint, Oil and Drug Club, on Dec. 14, by N. O. Nelson.

stock they found they had in place of it say \$200, including the entire gross profit. Then they bought some more goods, more members came in, they got the laws amended so as to give them practical corporate exemption from liability. After awhile they began to pay dividends, not on the capital, but on the purchases; and this is the nub of the co-operative system. They allowed 5 per cent interest on the money that each member had in and not more. The remainder, after using a little for surplus, went out as a dividend on purchases. The man who bought a pound's worth would get so much in dividend; the man who bought a hundred pounds' worth, in the same proportion, and so on, the dividends being paid quarterly.

That store is still in existence, and it has paid practically a uniform dividend of 10 per cent on purchases. They have now a surplus in their business of a little over a million dollars and they do an annual business of about two millions. After this got started others began to spring up in the same way. The only party to this kind of co-operation that does not profit is the one that does the work. No provision is made in the co-operative distributing stores for any distribution of profits among the managers and workers. They receive the usual compensation for superintendence and clerical and manual labor, and they buy their supplies of the store which employs them; but in no way are they better off than they would be if working for an ordinary business firm.

Mr. Nelson also gave other illustrations in this country and elsewhere. He favored very much the abolition of personal credit, and said that he regarded the present system of personal credit as one of the greatest evils of the time. Very few people employed on wages or salary accumulated anything for a rainy day and he had found that where his firm built houses to sell to their people, there was hardly one in a hundred that had money on hand and ready to make the first payment. A personal study compelled him to believe that not 2 per cent of employed men had anything saved and were usually a couple of weeks behind in their bills. A moment's reflection will show that this sort of people must naturally feel dependent. They cannot be good and safe citizens. One of the features he most admired in the co-operative principle was that of its doing its business for cash, and one of the principal advantages was that it educated the members into buying everything for cash. He said that the failure of the co-operative stores of the granger and other societies, was due to the fact that they were all organized on a credit basis, while the successes which were gradually growing in number were on the cash principle.

Proof spirit is so called from an old method of determining the strength of alcoholic liquors which was called the "proof." Gunpowder moistened with the liquor to be tested was ignited, and it there was sufficient water in the mixture to prevent the ignition of the powder, the liquor was said to be under proof. If at the end of the combustion the gunpowder took fire, the liquor was over proof. Although popularly supposed to be one-half water, proof spirit should contain in 100 parts 50.76 of water and 49.24 of alcohol.



A CARBONIC ACID MOTOR.

An apparatus which seems particularly adapted to the window display of the pharmacist, giving at the same time an opportunity to enlighten the public upon some interesting scientific points, is thus described by Gustave Michaud, Sc. D., of Costa Rica, in the *Scientific American*, December 13, 1893:

"If made of the dimensions given below the motor will oscillate for three or four hours without being reloaded. Its various parts are as follows: Two 9 or 10-oz. bottles, B, with wide mouth. One glass tube, T, about 26 inches long, and $\frac{1}{4}$ inch bore (cost about three cents). Two glass tubes, E, 6 inches long each, $\frac{1}{4}$ inch bore (cost about two cents). Two rubber stoppers, K, each with two holes (cost about fifteen cents each). If cork stoppers are used the expense is much reduced, but a set of round files (rat tails) or a cork borer will be necessary to bore holes in the cork. Two rubber tubes, I, about 4 inches long, $\frac{1}{4}$ inch in diameter (cost about ten cents). One rubber tube, R, about 19 inches long, $\frac{1}{4}$ inch diameter (cost about ten cents). A piece of wood, A, shaped in the form of a quadratic prism; size 1x1x2 inches. Two pieces of marble the size of a nut, each wrapped in a piece of linen.

"To make the apparatus, take the glass tube, T, introduce each of its extremities through the holes of the two rubber stoppers, K, place the rubber tubes, I, on each of the ends of the tube, T. Take a needle with common thread and sew the pieces of marble, wrapped in linen, to the free end of the rubber tubes, I. Take the piece of wood, A, nail on each side of it a piece of sheet iron, S. Out of the top of the piece, A, saw a cleft in which to place the glass tube. Press the center of the tube, T, in this cleft, and keep it in place by means of two pieces of wood screwed on the top of the piece, A.

"Pass the tubes, E E, through the holes left empty in the stoppers, so that the length of the part to be contained in the bottle be equal to half of the height of the bottle. Connect the tubes, E E, by means of the rubber tube, R. After putting it in place, cut a small hole in its central part, O. Last, stop one bottle with either of the two stoppers.

"To set the apparatus in motion, fill half of the unstopped bottle with a mixture of one volume of hydrochloric acid with one of water. Stop it, keeping meanwhile the whole apparatus in a vertical position, and place it on a box or any other stand, five to eight inches high.

"The occlusion of the rubber tube, R, by the pressure of one of the pieces of sheet

iron, S, will prevent the escaping of the carbonic acid, and the pressure of this gas will drive the liquid from the lower to the upper bottle through the glass tube, T. Meanwhile the gas contained in the upper bottle will escape through the hole, O, made in the center of the rubber tube, R. If the center of gravity of the apparatus is not much above its oscillating axis, the upper bottle will fall after receiving little more than half of the liquid contained in the lower one. Then the change that takes place in the occlusion of the rubber tube, R, by the pieces, S S, will cause a repetition of the same phenomena in opposite direction.

"If you wish the apparatus to cease its motion for a while, without waste of chemicals, place any heavy body on the lower bottle, which will then completely empty itself into the upper bottle, and all chemical action will cease, as the marble is never in contact with the liquid in the upper bottle.

"When made of the dimensions which we give above, its working expenses will be about one-eighth of a cent per hour, cost of the hydrochloric acid consumed."

The Board of Education of New York City have been requested to interdict the passing of slates and pencils from hand to hand by pupils in the public schools. It is stated that cases of communicable disease are the result of this practice among school children.

The University of Nevada Agricultural Experiment Station at Reno, Nevada, is sending out Bulletin No. 21, which is the first of a proposed series which will treat of the noxious plants of Nevada. That the readers of these bulletins may be enabled to recognize the various plants discussed, specimens of the plants themselves with their seeds are, where practicable, pasted on the pages of the bulletin.

An item of interest coming to us from London is evidence of the fact that hard times have apparently struck that little village, for we learn that a certain city firm state to their customers that, owing to the high price of hay and straw, they will be glad to have it returned with empties. Perhaps a little investigation of this matter might throw a little new light on the box and cartage charge for the edification of the wholesale trade of the United States. Jobbers here are not drawing the line of charging for boxing material nor of requesting its return, but we cannot be sure what they may come to.

CORKS AND THE TARIFF.

The announcement of the tariff schedule of the Wilson bill has given rise to a great many protests from the manufacturers who are affected by the radical changes which are to be made, not only in the rates of duty, but in the manner of levying them. Here is one item in the new schedule, which, while it concerns but a small number of manufacturers, and concerns the consuming public even less, has already received its share of protests, and that is the proposed change on manufactured corks. In commenting on the situation and the probable effect of these changes, a prominent cork manufacturer said "Crude cork, or cork bark, comes in duty free. This country produces none, although the experiment of raising the trees in the United States is now receiving considerable attention, but with doubtful results. The old duty, previous to the McKinley act, on cut corks was 25 per cent ad valorem. While apparently just, this was assailed by our cork men on account of the persistent undervaluations. The McKinley tariff changed this to a specific duty of 15 cents per pound. This, of course, applied to all grades, good, bad and indifferent, and it was then demonstrated that a specific duty of 15 cents per pound on all manufactured corks was, on the average, equal to an ad valorem duty of 25 per cent as a revenue measure, provided, of course, that valuations were honestly made. The Wilson bill now proposes to change this duty to 20 per cent ad valorem. Our cork manufacturers claim that there can be no objection to a specific duty, per se, and assert that corks bearing a duty of 25 or even 20 per cent ad valorem and honestly appraised, cannot be imported and sold in competition with ours at a profit, and the inquiry is quite pertinent as to how a duty of this kind will be a source of revenue. The idea of levying a duty on the value of goods imported is in itself all right. The main objection which can be raised against it is the difficulty, or rather the impossibility, of correctly judging values by those to whom the government delegates this duty. It is a matter of difficulty to place a just valuation on some of the simplest commodities, and who except one thoroughly posted will be able to say that a consignment of corks valued in the invoice at 25 cents per gross, is not really worth 50 cents per gross. Our cork men claim that the old system has fully demonstrated that in this article at least, an ad valorem duty simply puts a premium on dishonesty. A specific duty with all its objections is fairer on the whole, and is no harder on the Spanish manufacturer than the proposed, or even the old duty, when the goods are honestly appraised.

Spanish corks are cut by hand, little or no machinery being used. It has therefore been said that American cutters, with their enterprise, their superior machinery and greater facilities ought not to fear the competition of foreign hand-cut corks, even if admitted duty free. This argument has apparent weight, but there are other factors which influence the conditions in this country. No one can tell from the appearance of a piece of bark what its value will be when cut. It goes into the machine and is cut into corks of a certain size. There may be one gross of select corks with a large

number of worthless ones, or the product may show more satisfactory results. The hand cutters, on the contrary, can avoid all imperfections in the rough bark, cutting around them, making small or large corks as the nature of the piece will permit. In this way the waste which, with a machine, is fully 65 per cent, is reduced to less than 35 per cent. A cork cutter in Spain earns from 25 to 40 cents per day. Here a good man receives \$2 per day, and in factories where payment is made by the 100, an expert can earn more than that sum. Corks are an important item in a druggist's stock. Poor corks are dear at any price. When discounts from manufacturers' lists were but 5 per cent, none bought poor grades, and the ordinary qualities, so called, were better than the superline are now. Then the staple brands were the well-known X and XX. Now the economical buyer ignores these and uses manufacturers' special brands, such as circle A, diamond M and XXX, paying more for them, but in reality getting no better than he formerly received as ordinary quality. The cork business is now in a bad way. Prices have been cut down and quality correspondingly affected. There is a movement on foot to remedy these evils, and to supply the trade with a grade of corks conforming more closely to that sold years ago. This movement, which none will welcome more than the drug trade, will be seriously retarded by the proposed tariff changes. Let the duty on corks remain as it is, and give us a chance to furnish better corks."

ANOTHER TRADE MARK CASE.

The words "Columbia" and "Columbian" have been used so much during the late year that it would be something of a relief to find that some one had a trade-mark on the words and could prevent their indiscriminate use. The Columbia Mill Co., of Minnesota, evidently took this view of the situation, and brought suit against W. W. Alcorn & Co., of Pennsylvania, to restrain the latter from using the word "Columbia" upon a certain brand of flour, the plaintiffs claiming trade-mark rights in the name so applied. The Supreme Court recently decided adversely to such right, and our only consolation in the premises is the fact that the court stated the law of trade-mark in the following terse language:

1. That to acquire the right to the exclusive use of a name, device or symbol as a trade-mark, it must appear that it was adopted for the purpose of identifying the origin or ownership of the article to which it is attached, or that such trade-mark must point distinctively, either by itself or by association, to the origin, manufacture or ownership of the article on which it is stamped. It must be designed, as its primary object and purpose, to indicate the owner or producer of the commodity and to distinguish it from like articles manufactured by others.

2. That if the device, mark or symbol was adopted and placed upon the article for the purpose of identifying its class, grade, style or quality, or for any purpose other than a reference to or indication of its ownership, it cannot be sustained as a valid trade-mark.

3. That the exclusive right to the use of the mark or device claimed as a trade-mark is founded upon priority of appropriation.

4. Such trade-mark cannot consist of words in common use as designating locality, section or region of country.

RULES AND REGULATIONS OF THE RETAIL DRUG STORE OF J. H. WEBBER, CASCADE, IOWA.

Store must be open from 6 a. m. to 10 p. m. from April 1 to October 1, from 7 a. m. to 10 p. m. from October 1 to April 1, and from 9 a. m. to 9 p. m. on Sundays.

All lamps must be filled every morning, and cleaned once a week.

All stores must be kept supplied with wood, and ashes emptied as required.

All stores and lamps must be well looked after at closing.

All lamps must be lit at dusk, turned on slightly and watched to prevent smoking. All floors must be swept at 9 p. m.

All counter show-cases, bottles and goods must be dusted every morning, and show cases, bottles, windows, graduates, cuspidors and prescription utensils washed clean.

All goods and utensils must be kept in their proper places, and all goods unpacked, marked and checked off as soon as the bill for them arrives.

Positively no smoking during business hours, and no scuffling or playing will be allowed in or in front of store during business hours.

Keep an eye on the front door, and be up and ready to wait on customers promptly.

Keep the want book handy and enter all wants before entirely out.

Keep your memorandum book handy and enter all debts and credits at once without fail.

Never get too familiar with any one in the store, especially people who are your seniors, as it shows very bad taste and makes a person unpopular.

Never stimulate any arguments or disputes by taking any part in them—it hurts trade.

Never encourage boys or loafers around the store, as it drives away the best trade.

Never tell any one Mr. or Mrs. Smith made this or that purchase, because Mr. or Mrs. Smith may not want any one to know anything about it. Be courteous and obliging to all customers, even if they do try your patience; we will make them good customers in time by so doing. Never postpone any work that is to be done, and do it neatly and systematically.

Always attend strictly to business, and give it your entire time and attention during business hours, and remember that the proprietor has rights and privileges which his clerks are not entitled to.

The many complaints on the part of foreign exhibitors as to treatment at the World's Fair assume a different aspect now that Chairman Thacher, of the board of awards, has announced that foreign exhibitors have received 63 per cent of the prizes.

It is claimed that the sounds accompanying the eruption of the Krakatoa volcano, in 1883, which is situated on an island in the Straits of Sunda, were the loudest that were ever heard. The explosions were heard in West Australia, 1,700 miles away, and it is estimated that it must have taken the sound two hours to travel that distance.

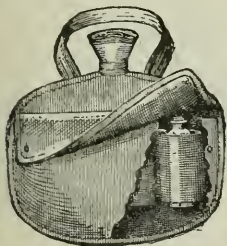
TRADE NOTES.

A new candidate for the favor of the Era's circle of readers is the Connecticut Witch Hazel Co., with offices at 132 Nassau st., New York, and distilleries at Chester, Haddam and Killingworth, Conn. This firm state that they have the capital and every facility for manufacturing a first-class article, and they invite correspondence for prices.

The Royal Malt Extract Co., of 1920 Washington avenue, Philadelphia, are after wide-awake druggists, and those who are not sure that they belong in this class will do well to write for particulars regarding the Royal Malt Extract. It gives satisfaction, keeps in any climate, pays better than others, and is sold under the retail druggist's label.

The well-known house of George Lueders, 238 Pearl st., New York, will hereafter be known as George Lueders & Co. There will be no change in the usual high quality of the essential oils handled by the firm, and in the future, as in the past, it will merit the special confidence of druggists, perfumers and soap makers, and the "Carlowa" brand of otto of roses will still continue to be a specialty.

An article which costs \$ 1-3 cents and retails for 25 cents certainly affords a good margin of profit. These terms are offered by the Wm. Conlson Drug Co., of Buffalo, N. Y., on trial orders for U. S. Corn Cure. They say that these terms on trial orders have built up a solid trade on this article, so that their claim that it is the best selling corn remedy on the market is one which has a solid foundation in truth.



The Penniston Food Warmer, manufactured by the Davol Rubber Company, of Providence, R. I., is an ingenious combination of rubber hot water bag and food warmer, which the druggist will have no trouble in selling to such customers as want either or both of these articles. The food warmer is sold with two sizes of pockets to suit either the ordinary nursing or sterilizing bottles, and by simply filling with hot water it will heat the food and keep it warm for ten hours, or during warm weather the bag may be filled with salted ice water, thus keeping the milk cool and sweet for children or invalids. The warmer is especially adapted for sterilized milk, thus avoiding contact with saucepans, etc., and as the food is always ready, a baby need not get thoroughly awakened while its food is being heated. Mothers and nurses are delighted with it and will support the druggist who keeps this article in stock. Write for full particulars and mention the Era.

The Era acknowledges the receipt of a very handsome calendar issued by The William Bengenthal Co., Milwaukee, Wis. On each page of the calendar appears a handsome steel engraving of some celebrated painting. It is a work of art and one which would not be out of place in the library.

Have you any novelties or specialties that you desire to introduce to the drug trade, but whose sales will not justify you in putting your own salesmen upon the road? If you have, see the advertisement of "Snap" in this issue of the Era. This is a splendid opportunity to introduce your goods.

There is little difficulty at this season of the year in selling remedies for colds, and the Lord Evedy Co., of Worcester, Mass., claim that even this little can be removed by keeping the right kind, which is Dr. Lord's Specific for Colds. They offer big inducements to druggists and solicit correspondence.

The Springer Torsion Balance Co., of 92 Rodeo street, New York, have lately gotten out a new scale beam graduated in three systems of weights—avoirdupois, troy, and metric—which will prove a useful instrument for familiarizing its users with the metric system, which has now become a necessity on account of its introduction in the U. S. P. 1890. Write for price list.

ART TILE CO.

Artistic effect and utility are the two great qualities which the Low Art Tile Co. claim for their soda fountains. These qualities form a combination which is strictly necessary in this age of the "soda water fad," from the fact that the man who has the finest fountain has a trade of the same class. The wide application of art tiles for decorative purposes renders the use of such material quite appropriate in a place of business where the public has been educated to expect the highest degree of decoration, and their employment in soda fountain construction affords an excellent means for this end. Utility, however, has not been lost sight of; on the contrary, the Low Art Tile Co. claim that colder soda with less ice can be obtained than from any made of other material. Intending purchasers should address the Low Art Tile Co., 952 Broadway, Chelsea, Mass., for full particulars.

LANOLINE PATENT.

New York, Dec. 18, 1893.

To the Editor:

We beg leave to inform you that the action brought against Messrs. John Richardson & Co., Limited, of Leicester, England, by Messrs. Benno Jaffe & Darmstaedter (the manufacturers of Dr. Liebreich's Lanoline) for infringement of the Lanoline patent has been decided in the English law courts in favor of the plaintiffs. This case is of considerable interest to all pharmacists and manufacturing chemists, and the decision has been awaited with much interest, as it bore upon a number of important scientific and commercial questions. The plaintiffs sought to restrain the defendants from manufacturing a preparation of wool fat similar to Lanoline, for the reason that purified wool fat in any form cannot be manufactured without producing Lanoline, and thus infringing upon their rights. Yours respectfully,

SCHULZE-BERGE & KOEHL.

Robert M. Green Co., 143 to 1419 Vine St., Philadelphia, promise something in the way of prices that should attract the attention of every prospective buyer of soda water apparatus. See their advertisement in this issue of the Era, and if you are contemplating a purchase of new apparatus or a change in your old one, and will mention the fact, illustrated catalogues will be sent you. Many druggists, especially those in smaller towns, do not engage in the soda water business on account of the price of a new apparatus. Many of these might find it to their advantage to buy second-hand apparatus. The Robert M. Green Co. has a large list of such apparatus of all makes, which they will be pleased to send upon application.

The Elkhart Paper Box Co. has sold its folding box plant to the Folding Paper Box Co., of South Bend, Ind. The latter will enlarge their facilities and hope to give their customers the best service possible. This part of the folding box work has grown so rapidly that this step has been deemed advisable for the better handling of the work. The shipping facilities at the new point are of the best, and they hope to avoid some of the annoying delays which they have been subjected to from the railroads. Mr. Wm. H. Barger, the manager of the Elkhart Co., will accompany the plant, and will endeavor not only to keep up the quality of the work turned out, but to improve upon it if possible. All correspondence addressed to them will have prompt attention. See their advertisement in this issue of the Era.

STEARNS' CALENDAR FOR 1894.

The Christmas greeting which Frederick Stearns & Co., of Detroit, Mich., are sending to their customers is of a character which far exceeds the many elegant expressions of good wishes which this firm sent out in former years, and is of exceptional interest on account of the introduction of a new feature in pictorial art, one to which much scientific research and effort have been directed during late years—that of photography in original colors. Stearns' calendar for 1894 is, we believe, the first example of this application of the new process which has been offered the public, and as such it possesses on interest aside from its artistic value. As regards the latter, however, a happy selection has been made in the reproduction of "The Rivals" by F. P. Michetti, a subject in which is included the inimitable coloring which nature gives to a pleasing landscape with that of two gaily costumed peasant girls whose graceful attitudes suggest the title of the picture. The details which attend the process are referred to at length in a small folder which accompanies the calendar. With the exception of the making of the plates all the work upon the calendar was done in the press room and bindery of the firm, and the result is certainly one in which they can take considerable pride. All regular customers of the firm will receive a copy of this elegant calendar. The feature of expense in the production of such work being a considerable one, the supply is, therefore, necessarily limited, and duplicates can only be furnished upon receipt of twenty-five cents to cover actual cost, postage and packing.

Itenders of the Era will do well to make the acquaintance of the Cincinnati Manufacturing Co., of Cincinnati, Ohio, whose advertisement appears in this issue. They make a specialty of brushes for the drug trade and their brush catalogue will be sent to all druggists who ask for it. Write to them and mention the Era.

The "compliments of the season" come to us from the W. J. M. Gordon Chemical Co., Cincinnati, Ohio, in the shape of a finely engraved card, the elegant appearance of which, together with the artistic skill which is displayed in its making, remind us strongly of a certain brand of glycerine in which both these qualities are found.

The Eagle White Lead Co., of Cincinnati, O., call the attention of the drug trade, in an advertisement in this issue, to their brand of lead, which is manufactured by the old Dutch process. Their product is on the market both in oil and in dry form, and they also manufactured lead and litharge. Prepare for next summer's paint trade by getting prices on the Eagle brand.

"How is your stock of these goods?" is a pertinent question which McKesson & Robbins, of New York, have placed, in this issue of the Era, before a list of reasonable and standard goods which every druggist is expected to keep in stock. There may be a few articles or remedies in this list with which some druggists are not acquainted. If such is the case, McKesson & Robbins will be pleased to mail descriptive circulars upon application.

Have you seen the Pickaninny Prize Puzzle, advertised in this issue, which the Standard Flint Glass Works, 1125-1128 Charlotte St., Philadelphia, have lately placed upon the market? It looks as if it couldn't be done, but the manufacturers assure us that it can. It is the puzzle of the season, and is meeting with immense sales. It retails at 19 cents, and a sample will be sent post paid on receipt of that amount. Write for special prices to the trade.

Mr. John C. Comstock, for the past 4 years representing F. R. Arnold & Co. on the Pacific Coast, and Mr. Lewis A. Langdon, formerly traveling salesman for Daniel Stewart, have formed a co-partnership and will carry on a general drug-brokerage business at 87 Commercial Club, Indianapolis, Ind. Among other important agencies, they have that of Tarrant & Co., New York City; Albany Chemical Co., Lawrence Oil Co., Cleveland; and Geo. Lorenz, Toledo.

CRIBBS MFG. CO.

The offer of the Cribbs Manufacturing Co., of Pittsburg, Pa., in this issue of The Era, merits some attention. The investment for a gross of Cribbs' German Cough Syrup is \$22. With every bottle is enclosed a ten-cent sample of Cribbs' Liver Pills. Two dozen twenty-five-cent boxes of these pills are also included free of charge with each gross order. In addition, handsome cards, signs and copies of paper called "Public Opinion" are furnished and the goods are advertised in local papers. Finally, if any of this cough syrup is left over next May, it can be exchanged for pills, liniment or worm syrup. Write to the manufacturers regarding this offer and mention the Era.

IMITATION LUBIN'S POWDER.

We are informed by the attorney for the proprietors of the Lubin extracts and toilet powders that an injunction has recently been obtained against one C. R. Bailey, who has been making and selling for several years an imitation of Lubin's powder. Suits are about to be commenced against several prominent houses who have been selling these counterfeit goods.

The next time the subject of buying pure oil of tar arises, write to Hansen & Smith, Wilmington, N. C. They quote this article at eighteen cents per gallon and put it up especially for the drug trade in iron-hoop barrels. They manufacture a very complete line of tar products, and their location in the heart of the producing country enables them to furnish a superior product at lowest prices.

Sharp & Bohme, manufacturing chemists, 41 John st., New York, have prepared something new in the shape of hypodermic tablets of the favorite salicathartic magnesium sulphate. These tablets are perfectly soluble, accurate and non-irritating, and in doses of one to three grains subcutaneously have been found to possess a very efficient purgative action. An interesting clinical report which was presented at the recent meeting of the Pan-American Medical Congress, at Washington, by Dr. Robe, and trial samples will be sent upon application.

BEESEX.

The attention of retailers is directed to the advertisement of Theodor Leonhard, Paterson, N. J., in this issue of the Era. Mr. Leonhard's old brand of beeswax, "T. L." extra white, enjoys a high reputation for purity among the trade, but from the fact that it is a pure beeswax it is higher in price than the chemically bleached or blended waxes. To meet the demand for a cheaper article, Mr. Leonhard has lately put out a new brand, "Diamond L." which sells at a little lower figure, the only difference between it and the older brand is that it is not bleached quite so white, the quality remaining the same. All druggists who are interested in the matter of procuring pure beeswax should write for sample cakes of these two brands, and specify "T. L." or "Diamond L." when ordering of their jobbers.

MERZ CAPSULE CO.

Does your physician know that you can fill his prescriptions for filled capsules without waiting to send to the jobber for the particular kind wanted? Do you know that you can do this kind of work with the capsules and simple apparatus furnished by the Merz Capsule Co., of Detroit? This is not only a question of enterprise and convenience on your part, but it is one that concerns your cash account. It does not take much knowledge of arithmetic to see the profit point in this calculation. You have no dead stock by adopting the Merz plan, as you only manufacture as wanted to fill your local demand. Take the price of 1,000 empty elastic capsules, at \$2.75 (the filling appliance is free), then figure the price in bulk of any oil or other liquid with which you wish to fill them, then compare the result with what you have to pay for filled capsules, and invest your money where it will give you the best returns.

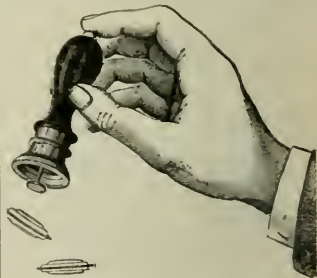
In looking over the "Want Advertisements" in this issue do not fail to note that of W. C. Smith, Oakland, California. Any druggist who desires to take up his residence in the land of fruit and flowers may find the way made clear by investigating Mr. Smith's offer.

Henry K. Wampole, manufacturing pharmacist, 441 Green st., Philadelphia, quotes some prices on Beef, Wine and Iron, in bulk, which are certainly worthy of attention. The figures can be used for comparative purposes, and samples of the preparation will be cheerfully furnished so that the quality can be compared with the product of other manufacturers.

Cooper & Hardenburgh, of Kingston, N. Y., believe that the sample plan affords the best method for introducing their goods to the public, and will furnish the dealer 50 samples with every order for 3 dozen Cooper's Floral Dentine accompanied by \$4.50. The samples sell the goods, and a clear profit of 100 per cent is realized from their sale.

LITTLE LIVER TABLETS.

The offer of the Acme Tablet Triturate Works, 96-98 Maiden Lane, New York, is undoubtedly one of the most unique ever offered to the drug trade. Remember, they furnish free of cost all that anyone can sell within thirty days on condition that the retailer will order and pay for a like quantity within the following thirty days. They also furnish advertising matter to help sell the goods. These tablets are packed in boxes of three dozen each. They cost eighty-four cents per dozen and retail at ten cents.



The advertisement of Utard & Co., of No. 3 Union Square, New York, shown on another page in this issue of the Era, refers to a department of practical pharmaceutical art, which has heretofore been neglected by the druggist on account of the difficulties involved in its practice. The use of cachets as a means for administering those medicinal preparations which, on account of their insolubility or objectionable taste, cannot be taken in syrups or other mediums, is already well established in Europe, and an opportunity is now offered by which the ordinary pharmacist of this country can put up in cachets any drug in powder form. The physician and the public very readily see the advantages of this method of medication when once it is called to their attention, and the simple apparatus for making cachets is destined to become one of the fixtures in the laboratory of the dispensing pharmacist. Write to Utard & Co. for free samples, illustrated pamphlet and prices. Mention the Era.

A 100 per cent profit is what the druggist is after during these hard times. The Celery Medicine Co., of Kalamazoo, Mich., say you can make that profit by selling Loring's Celery Cough Drops. Nine out of ten people like celery and the same proportion like celery cough drops. This company furnishes a box containing thirty five-cent packages for seventy-five cents. Three box lots at seventy cents per box. They also furnish advertising matter with every order. Write them and mention the Era.

Attention is directed to the advertisement in this issue of Menn & Stubenrauch, manufacturing pharmacists, 83 John street, New York. The fluid extracts manufactured by this firm are prepared strictly according to the U. S. P., and their catalogue contains some ideas upon the preparation of this class of pharmaceuticals which are quite pertinent and to the point, and should engage the attention of all druggists. This firm are also sole agents for the fruit tablets of the London Tablet & Specialties Co., Pepsinum Purum Plane Solubile manufactured by Dr. Heinrich Byk, Berlin, Germany, and the French Triple Extracts manufactured by Perrier & Co., Grasse, France. Write to Menn & Stubenrauch for their last catalogue.

THE "REX" BRAND.

The Cudahy Packing Co. are distributing a fine lithographed folder with the compliments of the season. Aside from its artistic excellence it contains much interesting information extracted from the business statistics of the firm for the year ending November 30th, 1893. The total sales amounted to \$22,327,622; total pay roll, \$1,249,227; number of employees, 2,500. The works at South Omaha cover a ground area of twenty-three and a half acres and the total floor area in the buildings is equal to seventy-five acres. The company produces 3,461,485 pounds of butterine annually and made 10,000,000 pounds of fertilizers last year; 548,286 hogs, 203,651 cattle and 22,668 sheep were killed during the period mentioned. That portion of output which is marketed through the Cudahy Pharmaceutical Co. consists of the well-known "Rex" brand of extract of beef and pepsin. Of the latter 30,000 pounds are made annually and of the former 200,000 pounds.

SPECIFY MERCK'S.

Merck & Co., of New York, assure the pharmacists of the United States that the placing of the word "Merck" after the names of fine chemicals, which they have occasion to order, will insure the receipt of products which are recognized as standards for purity, reliability and general excellence. This superiority is due to several causes, one being an experience in manufacturing which has come through years, beginning with a small apothecary shop in Darmstadt in 1668, and extending up to the present time, the firm of E. Merck now representing one of the most extensive and diversified establishments in the list of German chemical industries. Another cause is the close relationship which has always existed between members of the firm and the leading men of science in their respective periods, a connection which is largely responsible for the introduction of many remedial agents which have been received with great favor by the medical profession.

The uses to which the gilt tin cans manufactured by Joseph G. Taite's Sons, Philadelphia, Pa., can be put, are too numerous to admit of full mention. They are especially adapted, however, for holding drugs, herbs, powders, etc., and their attractive appearance renders them quite suitable for shelf ware. They are for sale by wholesalers throughout the country, while the manufacturers will be glad to answer all inquiries regarding their goods and prices.

The New Year's greeting of A. D. Puffer & Son in this issue of the Era, "Ring out the old—Ring in the new," is especially applicable both to the old and new years, and the old and new soda fountain. The druggist himself is the best judge of the propriety of "ringing out" his old soda fountain, but Puffer's catalogue for 1894 of the "Frigid" soda apparatus will tell him just what kind of a new one to ring in. This catalogue is now ready and will be sent upon application.

That "One Bottle Cures," is so true of Yellow Pine Compound for rheumatism, that our dealers need not offer three bottles for \$5 as an inducement to buyers. One bottle sold is so good an advertisement that two more, or two dozen more, will sell on its recommendation. Dealers are constantly inquiring for a medicine that will cure rheumatism. Yellow Pine Compound fills the long-felt want. Send for price card and circulars to Yellow Pine Extract Co., Allegheny, Pa.

SUNNY SIDE STOCK FARM.

Mr. Wm. Fitzgerald, a prominent breeder at Cresco, Iowa, writes under date of December 4th as follows: "I have used Quin's Ointment for the past three years, and with wonderful success. I have removed bunches and also cured a bog-spavin in four weeks. It has no equal for curbs and will do all you claim." For curbs, splints, spavins, windpuffs and bunches use this wonderful remedy. Quin's Ointment is endorsed by the leading breeders from Maine to California. It will pay all druggists to carry it in stock, and if you desire advertising or will send the names of ten or twelve of your customers, who are in the horse breeding line, to Messrs. W. B. Eddy & Co., Whitehall, N. Y., they will forward them, without charge, trial packages.

DERMADOR.

In their advertisement in this issue of the Era, Messrs. D. Ransom, Son & Co. make a special offer to druggists. The advertising matter can be considered A1. They do not make the mistake of having the horse book one mass of advertisements. It is a book which will be read and appreciated by horsemen generally, containing as it does valuable information with descriptive cuts on such subjects as these: "Man and Horse Compared," "The Teeth as Indicators of the Age," "Remarks on the Hoof," "Temperature and Pulse," "The Trotting Horse Standard," "Percentage of Blood in Pedigree," "Stable Hints," "Big Prices Paid for Trotters," "How to Examine a Horse for Soundness," etc., etc. It is a book that will be read clear through and retained—not glanced over and rejected. The lithograph, too, is a fine piece of work and closely resembles a water color.



RULES FOR CONDUCTING A PHARMACY.

"During business hours all hands must be on their feet, and must be employed either in waiting on the counter or at some regular store duty."—Parrish's Treatise on Pharmacy.

If 1,000 physicians were to give the same testimony in a certain case where the result depended upon expert opinions, there would be but little doubt as to the verdict of the jury. This is exactly the case with Stewart's Gipsy Pile Ointment, manufactured by Fred W. Stewart, Oswego, N. Y., only the favorable evidence keeps coming in. An interesting feature (to the druggist) of this preparation is the price—costs 25 cents, retails for 50 cents, and will be sent express or postage prepaid.

It is hardly necessary for so old and well-known a firm as Morrison, Plummer & Co., of Chicago, to call attention to the platform upon which they have built up a trade of great proportions and won the confidence of their patrons. In summing up the results of the Columbian year they find upon their books the names of many new friends, and it is to such that their advertisement in this issue of the Era is especially directed, while at the same time their old customers will read it with interest and approbation.

NEW REAGENT BOTTLE.

Queen & Co., of Philadelphia, have lately put upon the market a new reagent bottle, which is a great improvement over the various styles heretofore in use. All stoppers are dispensed with by the use of glass caps, which are ground to fit the outside of the neck of the bottle. The caps do not stick and by their use the lip of the bottle is kept free from dust. The name of the reagent appears upon the bottle in raised letters and the caps are marked on the top with the formula to prevent them from being mixed up, as is frequently the case with stoppers. The caps can be laid down without picking up dirt, as wet stoppers are apt to do. The glass used is what is known as "potash," which best resists the action of alkalies and other reagents. The sizes are better, being 5 and 10 ounces instead of 4 and 8 ounces, and they are as cheap (size being considered) as the old form. A set of forty bottles is furnished for \$8.90. Write for further particulars and mention the Era.

"Proved by their hides" is the way the Chicago Rat Paste Co., 210 1/2 South Clark street, Chicago, refer to the efficacy of "Knockemout" in destroying rats, mice, cockroaches, etc. The chemicals composing it are of such a character that they coagulate the blood corpuscles and destroy the odor of the vermin, leaving nothing but the dried skin. Costs but seventy-five cents per dozen, and a half million boxes were sold last year.

While the use of iodoforn can be strongly recommended from a therapeutic standpoint, its odor is such that the unfortunate patient who is compelled to use it, occupies, for the time being, a position in human society quite similar to that of the Mephitis Americana in the animal kingdom. This unfortunate condition can be avoided to a great extent by the employment of Iatrol, which is claimed to be superior to iodoforn as an antiseptic, and is also inodorous. It is manufactured by the Clinton Pharmaceutical Co., of Syracuse, N. Y., who will furnish full particulars as to its application and properties upon request.

You are not thoroughly posted upon the cork question unless you have investigated the quality and obtained the prices of all the different brands upon the market. All manufacturers expect competition and constantly put forth their best efforts to improve their goods beyond that point, and this condition is largely brought about by discrimination on the part of buyers. With this idea in mind the Flower City Cork Works, of Rochester, N. Y., solicit trial orders for their brands of corks for druggists' use, and will be pleased to quote prices to all inquirers.

KUMYSS.

The endorsements which Kumyss has received from the medical profession as a remedy in dyspepsia, feeble and imperfect digestion, anaemia, convalescence from fevers, etc., are enough to commend it to the favorable consideration of the pharmacist, and in many instances a profitable trade in this preparation could be built up by displaying a readiness to order it as it is demanded in the practice of the physician. The Kefir Kumyss, manufactured by R. E. Rhode, 504 North Clark street, Chicago, is especially recommended for medical purposes, from the fact that the true Kefir ferment known as *Diospora caucasica*, which possesses the power to peptonize albumenoids, is used in its preparation.

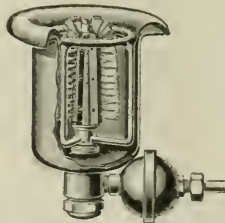
THE SCATES PLAN.

Those who have seen the advertising material used by the Scates Medical Company, of Westbrook, Maine, unite in saying that it creates an immediate demand for the goods. Vitalized Tonic and Lax-ive do not encounter the difficulties which usually obstruct the success of new remedies, as the purchaser knows that he runs no risk in making a trial of these preparations when a slight draft for the price of the remedy is available in case there is no benefit or cure. As an extra inducement to the druggist, the Scates Medical Co. issues to each purchaser of \$10 worth of goods a share of their common stock, whose value is equal to the amount of the purchase, and one-fourth of the profits of the company are set aside to pay dividends upon such stock. Write for full particulars, references and samples of advertising.

Chas. F. Knide & Co., 216 East Lake St., Chicago, Ill., are manufacturers of drug store fixtures of every description. They have fixed up many fine stores, one of which at Hastings, Neb., is one of the handsomest we have seen. A catalogue and information will be sent to anyone requesting it.

The Morley Drug Company, of 67 and 69 Franklin st., Chicago, is a comparatively new firm, but its members are men who are thoroughly posted in the needs of the drug trade. They are manufacturers' agents for a number of good firms, among which are Gilpin, Langdon & Co., Baltimore, and Herf & Frieichs, St. Louis. They make a specialty of first-class goods in original packages, and believe that the prices which they quote and the quality which they are able to furnish will bring them a just proportion of the jobbing drug trade. They issue a monthly price list and will be glad to furnish it on application.

The Amick Chemical Co., of Cincinnati, O., say in regard to their chemical treatment for tuberculosis, that it is offered by them, not as a mere palliative, but as a restorative in the majority of cases. The theory upon which it is founded is opposed to the bacilli idea, Dr. Amick claiming that the remote cause of consumption is mal-assimilation beginning in the intestines with evidence of fermentation and imperfect absorption, and that the microbe is simply an evidence of the presence of the disease, not its cause. The chemical treatment includes constitutional medication, and an inhaler used in a very small and convenient inhaler devised by Dr. Amick. Any physician who desires to inform himself as to the merits of the treatment will, upon application, accompanied by a report of the physical condition of the patient upon whom it is to be used, be furnished, free of charge, a supply of each of the medicines, with inhaler.



The above illustration shows an apparatus which should attract the attention of every druggist who sells soda water. The question of how to cleanse glasses thoroughly and easily is settled in a very complete manner. The apparatus is attached to a water supply pipe and a soda or mineral water glass is placed over the brush, a slight downward pressure starts several jets of water, and a few revolutions of the glass around the brush serves to completely remove all particles of cream, etc., the jets of water completing the operation by thoroughly rinsing the glass. The apparatus is manufactured by L. L. Rowe, 16 Howard st., Boston, Mass., and every druggist who contemplates improving his facilities for dispensing soda water should investigate this handy appliance.

Careful pharmacists and manufacturing chemists employ none but the best of everything. In this classification belong "Circle A Corks" which received the highest award at the World's Fair. All jobbers and wholesalers have them or they may be obtained from the manufacturers: Armstrong Bro. & Co. (Incorporated), Pittsburg, Pa.; Armstrong Brothers Co., New York City; Fay-Armstrong Cork Co., Chicago; Armstrong-Gilbert Cork Co., St. Louis, Mo.

ARSENAURO.

The preparations of gold known as "Arsenauro," or Liqueur Auri et Arseni Bromidi-Barclay and Liqueur Auri Arseni et Hydrargyri Bromidi, which have been presented to the medical profession through the labors of W. F. Barclay, of Pittsburg, are now being prepared after Dr. Barclay's formula by E. M. Johnson & Co., 38 Platt street, New York. All matters relating to the commercial aspect of the subject should be addressed to this New York firm, while all inquiries as to the therapeutic action of the preparations should be addressed to W. F. Barclay, M. D., 474 Fifth avenue, Pittsburg, Pa., who will be pleased to furnish literature bearing upon new applications and new combinations of this important article of materia medica.

CREOSOTAL.

Creosotal, or creosote carbonate, manufactured by Dr. F. von Heyden's successors, Radebeul, Germany, is one of the best forms of Beechwood Creosote for consumptives. Its action is not caustic and irritating to the mucous membrane of the digestive organs, like that of creosote, and it is non-poisonous to such a degree that it can be dispensed as a pure undiluted substance by the teaspoonful without disagreeable effect upon the most sensitive patient. Creosote Carbonate is administered either pure or in capsules, or mixed with four to twelve parts cod liver oil, or as an emulsion of one-half to two teaspoonfuls, beaten up with the yolk of an egg, diluted with water, sweetened and some aromatic added. Schering & Glatz, 55 Maiden Lane, New York, are the sole agents for this preparation in the United States and will be pleased to furnish pharmacists full literature upon Creosotal.

THE WORLD'S FAIR FOR SALE.

LOOK AT IT! The Michigan Central has arranged with one of the best publishing houses in the United States for a beautifully printed series of World's Fair pictures, to be known as the Michigan Central Portfolio of Photographs of the World's Fair.

The original photographs would cost not less than a dollar apiece, but the Michigan Central enables you to get 16 pictures for 10 cents.

It's the finest. It's the most complete.

It's the best. It cannot be beaten.

If you saw the World's Fair, you want it as a perpetual souvenir of a memorable visit.

If you didn't get there you want this to see what you missed, and to fill your mind with the beauty and glory of the White City.

Call on the nearest Michigan Central ticket agent, and he will furnish you with the first part and tell you more about it, or write to O. W. Ruggles, G. P. & T. A., Chicago, enclosing 10 cts. for the collection.

The Rochester Candy Works, Rochester, N. Y., report a very gratifying trade in their satin gloss Butter Cups, which they put upon the market for the fall and winter trade. The druggist who desires to get people into the habit of eating good candy and coming to his store after it had better include a trial order for "The Delicious" confections as one of the means to accomplish this end. People will not go to the same place more than twice for poor or indifferent candy.

"A druggist's profit" is certainly a theme which excites the interest of everyone in the drug business. Frederick F. Ingram & Co., of Detroit, Mich., have delivered some forcible remarks on the subject in their advertisement in this issue of the Era, and they have some figures making the matter still plainer which they will furnish every druggist who will send them his name and address. Every request of this kind will bring the druggist a copy of the firm's illustrated catalogue and Poison and Liquor Register.

Colburn, Birks & Co., of Peoria, Ill., have reason to be satisfied with the results of their endeavors during the past year to impress upon the drug trade and public in general the advantages of using a pure, unadulterated rye whiskey for medicinal purposes, and that their efforts have been appreciated is evidenced by the increased sales of Clarke's Pure Rye Whiskey. Colburn, Birks & Co. extend the compliments of the season to their friends and customers, and wish them all a prosperous and happy new year.

Aside from the general excellence of the goods themselves, the Pomona Fruit Juice Tablets manufactured by Duquette & Co., of Council Bluffs, Iowa, are packed in such a way as to attract attention on the part of the public, which results in a demand for the goods. The attractive square flint glass bottles with ground glass stoppers are an ornament to any store. The goods are packed twelve bottles in a case, and there are over twenty flavors to choose from. Write for prices on case lots delivered at your nearest railroad station.

The pure mass licorice manufactured by Mac Andrews & Forbes, of 55 Water street, New York City, has heretofore been received with so much favor by the tobacco trade on account of its superior qualities, that this firm desires to call the attention of the drug trade to their product as being especially adapted to pharmaceutical purposes. The goods are sold under the firm's trade mark in cases weighing about 250 pounds net, and the drug trade will learn something interesting in the way of prices by writing to them.

It is not too early to begin to figure on the Easter Egg Dyes, and your calculations on this subject should include a consideration of the offer of O. A. Ohl, Tiffin, Ohio, who puts up such dyes in lozenge form, each package containing six colors, which will color from three to five dozen eggs. The goods are put up in boxes of 100 packages and cost \$2.50 per box, each package retailing for five cents. In addition to this the manufacturer gives free of charge one dozen Indian Corn Cure, so that the investment nets \$3.

Irwin, Kirkland & Co., successors to Smith, Hubbard & Co., manufacturing pharmacists, Decatur, Ill., report a very satisfactory business during the past fifteen months. They are continually adding new remedies to their large assortment of "non secrets" for the drug trade. They also prepare a full line of fluid extracts, compressed tablets and pharmaceuticals. They claim best quality and lowest prices for their goods and request the drug trade to send for their catalogue.

It is not a difficult matter for the druggist to find out that Duroy & Haines, of Sandusky, O., mean just what they say in regard to the superiority of their wines for medicinal purposes. The question can be easily decided by sending for samples and subjecting them to all possible tests. A greater portion of the drug trade is already familiar with the wines of this firm and to that portion the advice is offered that this knowledge should be used when goods are ordered. This firm has now on hand a fine stock of fully matured wines, and recent enlargement of their facilities enables them to attend to the wants of their customers in the most satisfactory manner.

"TRIPLE REFINED."

We desire to call the attention of the trade to the cry of certain manipulators of rock candy drippings, who claim superiority for their product through a certain hocus-pocus process called "triple refining." We have always maintained that this residue from rock candy is not pure, and that the "drippings" thus refined are not as desirable as a syrup made of the rock candy crystals themselves. A part of the mother syrup is, in the purifying process of nature, taken up and formed into crystals. A syrup made by melting these crystals is the only rock candy syrup properly so called. A syrup thus made is pure and needs no "triple refining." If merchants will insist upon getting a syrup and not drippings or drips, these "triple refined" fakirs, who are perennially discovering new processes will find themselves very lone-some indeed. At first such goods were branded "refined," then came the term "double refined," and now an eastern concern is loudly proclaiming the advent of the "triple refined." Assuredly if "triple refining" is a good thing, quadruple refining is better, quintuple still better and so on ad infinitum. Be logical, you of the "triple refined." Why do you triple refine only, or why do you triple refine at all, unless your kettles have become the dumping ground for the other members of the "Triple Rock Candy Combination." If so, does it seem fair that one member of the trust should be made the sewer for the other members who have other goods to sell besides rock candy and its products? Does it seem just that they should be permitted to melt the crystals into syrup while one firm is left to "triple refine" the drippings? Is it necessary to perpetuate a fraud to keep in business?

The D. E. Scully Syrup Co. manufacture a pure rock candy syrup directly from the crystals. Send for prices on rock candy and rock candy syrup. We are not governed by trust prices.

D. E. SCULLY SYRUP CO.,

49-51 River St.

Chicago, Ills.



RULES FOR CONDUCTING A PHARMACY.

"Have a place for everything, and keep everything in its place." This rule is generally observed in all pharmacies, but our artist advances a theory as to why some things cannot be found when wanted.

MAP OF THE UNITED STATES.

A large, handsome map of the United States, mounted, and suitable for office or home use, is issued by the Burlington Route. Copies will be mailed to any address, on receipt of fifteen cents in postage, by P. S. Eustis, Gen'l Pass. Agent, C., B. & Q. R. R., Chicago, Ill.

An originality which has been well sustained has enabled the proprietor of Paas Easter Egg Dyes to keep them well to the front as the best article in every way for their specific purpose. First made in 1880, every improvement that promised any advantage has been promptly utilized, until now they are perfection itself. The attention of the trade is called to the fact that Easter comes early this year, on March 25, so orders should be placed early. The entire trade will be amply supplied. Your jobber has them. Don't delay placing your order.

TO THE TRADE.

We want every druggist to know that we are one of the largest wholesale distributors of Rye, Bourbon and Malt Whiskies in bond and tax paid, in this country. We can furnish Eastern and Western Ryes, Sour Mash and Sweet Mash Bourbon and Malt Whiskies. We can supply fine blended whiskey under our own trade mark, as well as straight Ryes and Bourbons of our own bottling. We are agents for the product of Sen. Stanford's celebrated "Vina" ranch, whose wines and brandies are not excelled in this country.

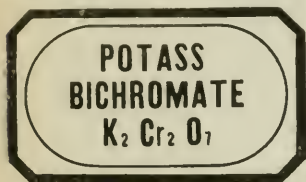
We are headquarters for Alcohol and Cologne Spirits, which we supply at the lowest market quotations, and in addition to these staples we are agents for most of the celebrated cordials, such as Creme de Menthe, Kuemmel, Maraschino, and we carry in stock many others. A postal card from you will bring a printed list of the goods we carry, and we are pleased at all times to answer any inquiries from druggists regarding our goods.

THE WEIDEMAN CO.,

53, 55, 57 and 59 Water st.,

Cleveland, Ohio.

The question of manufacturing compressed tablets is still a live one with the retail druggist. A great many are already doing such work with gratifying success, while many appear to be waiting to see the result of others' experiments in this direction. A. Læggøe & Co., Trenton avenue and Adams street, Philadelphia, claim the latest, simplest and best in the Keystone tablet machine, and their circular and price list is quite convincing in the way of showing the druggist how he can profitably engage in the business of manufacturing tablets for his own trade, and supply the needs of his neighboring physicians. Write for full particulars, mentioning the Era.



Any druggist whose shelf ware is becoming shabby on account of the breakage of glass labels, should remember that Dr. R. R. Lansing, 289 Jefferson ave., Detroit, Mich., can reproduce any style of glass label in his new glassline labels. These labels are made from transparent sheets of celluloid and cannot be distinguished from glass labels. Labels of this material can also be furnished in any style or design to suit customers. Send 8 cents in stamps for samples and mention the Era.

Two qualities which should belong to deodorizers and disinfectants for general use, are absence of odor and toxic properties. These properties are distinguishing features of the well known Bromo-Chloralum, manufactured by the Bromo Chemical Co., New Lebanon, N. Y., and therefore make it a preparation which the druggist can safely recommend for popular use. In order to further extend the employment of this compound, 500 counter wrappers are furnished, with the retailer's name printed thereon, with every order for 3 dozen, and samples will be sent to such physicians as may be indicated by the druggist.

An interesting story is told by a Memphis paper about the fight between the independent crushers and the American Cotton Oil Company in that vicinity. The latter began operations early in the season by advancing prices for seed in the neighborhood of Memphis, and the business finally became too unprofitable for the independent companies to remain in the trade. One of the latter retaliated by sending agents into Alabama and Georgia to buy seed at a slight advance over trust prices, and at Columbus, Miss., where the trust had been paying \$12 per ton, an independent warehouse was established which offered \$14. This price was promptly met by the trust, as was an additional raise to \$16. It was then discovered that the independent man had not bought a load of seed. He had simply paid the sellers 50 cents to drive through his warehouse into an adjoining strip of woods, and thence by a circuitous route to the American Company's warehouse.

TAX UPON PROPRIETARY GOODS.

The following letters, which explain themselves, are being distributed by the chairman of the committee on legislation of the N. W. D. A. and the Proprietary Association:

Pittsburg, Pa., December 19, 1893.

Gentlemen—I have been informed that the majority of the ways and means committee are contemplating a stamp tax upon proprietary medicines. A recent dispatch from Washington City states that this feature of the internal revenue bill, now in process of construction, has been decided upon. The bill will probably be reported to the House some day next week. I hope you will write your Representatives without delay, as there is no time to be lost. Be quick and emphatic in your protest against the revival of this war measure.

Yours truly,

GEORGE A. KELLY, Chairman.

Committee on Legislation, N. W. D. A.

Lockport, N. Y., December 13, 1893.

Dear Sir—My attention has been called to the fact that one of the congressional committees has in preparation a bill providing for the placing of a stamp tax upon proprietary medicines. The tax was recommended some little time ago, I learn, but has just recently secured the attention of the committee. I quote from a late issue of a leading newspaper in relation to this matter, as follows: "Statistics have just been obtained from the Treasury Department which indicate the amount of revenue which the tax would yield, and it is likely to be adopted as one device for escaping the direct levy upon net incomes."

If a bill of this nature should become a law, the disastrous result could not be estimated, but it is safe to say that it would certainly force over one-half the manufacturers of proprietary articles out of the business. It is wise to anticipate such legislation as this, and we cannot be too well prepared for an attack of this nature.

There is no time for delay! The consequences brought about by the stamp tax placed upon medicines at the close of the war fully demonstrates what we may expect if this new law should be permitted to pass.

Let me urge upon you the necessity of telegraphing or writing at once to your Representative in Congress and United States Senator, and requesting them to oppose such a measure as the one in question as strongly as possible.

Information in regard to inimical legislation is hereby solicited, and any suggestions you may care to make in reference thereto will be duly appreciated.

My absence from home has prevented earlier attention to this matter.

Yours respectfully,

JOHN HODGE,

Chairman committee on legislation, Association of Manufacturers and Dealers in Proprietary Articles of the United States.

A mine has been discovered in Pennsylvania which is said to produce Venetian red, amber, ochre, sienna and several shades of brown colors. A rainbow of the carboniferous age probably got mixed up with the earth during prehistoric times.

WHAT NEXT?

Now that the holiday rush is over the question with many druggists will be, "What next?" The answer to this inquiry is, "reasonable goods." Many articles of this character have perhaps been side-tracked lately, and their places taken for toilet articles, perfumes, fine stationery, candles, etc. It is believed that the holiday trade was not so bad after all, as many predicted it would be; however, there are many druggists who have a good many things left which Santa Claus did not seem to want, and these should now be cleared away and preparations made to take advantage of the more or less serious results which follow in the wake of the innocent dissipation of the holiday season, and the process of swearing off. The prophet of the drug store intimates that the cough medicine market is going to be firm, basing the prediction upon the fact that the most disagreeable part of our winter weather is yet to come. Assuming that this is true, it behooves the drug trade to be fully prepared for the campaign.

Every druggist carries in stock 25 different brands of cough medicine (more or less). This stock would make an excellent window display, and with daily attention and occasional rearrangement will last for a long time, and the opportunity for calling attention to such a display by means of varied advertising is one that should not be disregarded. Many people never think of doctoring an ordinary cold until their attention is called to some means for doing so. Then there is hot water bottle, atomizer, and chest protector trade. There are too many cold feet in this country and lots of people look upon this condition as a natural and necessary evil. The druggist should preach hot water bottles, and put the goods where people can see them. Make prices to meet the department store (people won't buy unless you do), and make it a point to sell all your stock of this kind this winter. Don't save any for next season. It will not pay. Do not think that trade is falling off because people spent a little extra during the holidays. They will need drugs just the same, and it is the duty of the wide-awake druggist to call their attention to what they need.

"Tomato squash" is the name which the Caterer gives to a new beverage which is in vogue among that class of society which live well, have the gout, and regard "two bottles as the proper amount of liquid to be taken at dinner. The new drink is made by squeezing the juice of a couple of fully ripe tomatoes into a large glass and then filling it up with seltzer water. It is not altogether bad to take and perhaps the druggists might include it in the list of next summer's soft drinks.

Lochman's Dose and Price Labels, advertised on another page in this issue, may be well considered as belonging to the class of indispensables which should form a part of every well regulated pharmacy. This collection of labels includes nearly everything in the line of materia medica, and gives formulas for many official and unofficial preparations. The labels may be preserved in book form as a valuable work of reference, and also utilized as a price book, or they may be cut out and attached to shop bottles and other containers.

BOOK REVIEWS.

The French Doctor's Book.*—The real character of this book is not revealed in its title, it being a collection of 1,200 prescriptions compiled from those used by eminent European specialists in the treatment of various diseases and complaints. The compiler, Dr. N. Gallois, Laureate of the Institute de France, etc., has done his work well, and the formulas selected cover a wide scope of medical practice and are of interest not only to the practitioner, but to the pharmacist as well. Technical terms and signs have been avoided and the formulas expressed in language easily comprehended. The book is, upon the whole, a commendable one, fairly well arranged, and contains a copious index, by means of which the appropriate treatment of any of the diseases noted may be readily found.

A New Pathology and Treatment of Catarrh is the title of a pamphlet by Seth Scott Bishop, M. D., reprinted from the Journal of the American Medical Association. The author very intelligently discusses the uric acid theory in the causation of catarrh, and outlines some very important points which should be taken into consideration in the treatment of the disease.

Ueber das Verhalten der Allylmaionsaure, Allylessigsaeure und Aethylidenpropionsaure, Beim Kochen mit Natronlauge Beitrage Zur Kenntniss der Propyldenessigsaeure, is the title of a pamphlet presenting the inaugural dissertation before the faculty of Strassburg University for the degree "Doctor Arbeiten," by John G. Spenzer, of Cleveland, O.

The Child, Physically and Mentally.—A pamphlet of 155 pages, one-third of which is devoted to a general consideration of hygiene, and its relation to health, particularly the importance of hygienic surroundings and correct living in the rearing of the child. The remainder of the book consists of suggestion and advice to the mother, dwelling upon the necessity for proper sanitary surroundings and the choice of foods. As a whole the book is an essay very general in character, rather than a work from which much practical, specific and detailed information is to be gleaned. However, the mother will find its advice reasonable and worth following. Its several chapters are: History of Hygiene, What Hygiene Includes, The Infant During the First Few Weeks of Life, Use of the Nursing Bottle to Supplement the Mother's Milk, Bathing and Washing, Rearing Entirely by Hand, The Nursery and the Infant's Further Development, Education of the Aesthetic Sense in the Nursery, Further Development of the Healthy Child, Children's Diseases. It is written by Bertha Meyer, translated by Friederike Solomon, and published in America by M. L. Holbrook Co., New York. Paper, 50 cents.

The consumption of ivory for billiard balls is something enormous. At the World's Fair was displayed a photograph of a pile of 20,000 billiard balls, which represented the ivory obtained from 2,000 elephants.

*The French Doctor's Book.—A collection of 1,200 Favorite Prescriptions by the most eminent Foreign Physicians, Compiled by Dr. N. Gallois, Laureate of the Institute de France, etc. English Translation, cloth, 124 pages, price \$2. Boston, W. Von Bergen.

PATENTS,

TRADE-MARKS AND DESIGNS.

From U. S. Patent Office Gazette.

PATENTS.

- 508,015—Process of Preparing Kola Powder.—Hugo Hoffman, Berlin, Germany.
 508,229—Suspensory Bandage.—William L. Marcy, Annapolis, Md.
 508,326—Soda Water Apparatus.—Fisher H. Lippincott, Philadelphia, Pa., assignor to the American Soda Fountain Company, Jersey City, N. J.
 508,327—Soda Water Apparatus.—Fisher H. Lippincott, Philadelphia, Pa., assignor to the American Soda Fountain Company, Jersey City, N. J.
 509,520—Salicylic Ester of Acetol.—Paul Fritsch, Marburg, Germany.
 509,560—Sterilizing Apparatus.—Austin V. M. Sprague, Rochester, N. Y., assignor to the Sprague-Schuyler Manufacturing Company, of New Jersey.
 509,589—Process of Purifying Fatty Matters.—Etienne Watel, Paris, France, assignor to the Societe Anonyme des Parfums Naturels des Cannes.
 509,617—Pharmaceutical Compound.—Felix Goldmann, Elberfeld, Germany, assignor to the Farbenfabriken, vormals Fr. Bayer & Co., same place.
 509,623—Brown Dye.—Richard Lauch, Elberfeld, Germany, assignor to the Farbenfabriken, vormals Fr. Bayer & Co., same place.
 509,664—Method of and Apparatus for Concentrating Sulphuric Acid.—Henry Howard, Brookline, Mass.
 509,676—Hypodermic Syringe.—Charles J. Pilling, Philadelphia, and Albert McKee, Moore, Pa.
 509,929—Blue Azo Dye.—Max Moeller, Berlin, Germany, assignor to the Actien-Gesellschaft fuer Anilin Fabrikation, same place.
 509,957—Process of and Apparatus for Making Cyanides.—Wilhelm Siepermann, Leopoldshall, assignor to the Stassfurter Chemische Fabrik, vormals Vorster & Grueneberg Actien-Gesellschaft, Stassfurt, Germany.
 510,132—Process of Separating Tannin From Other Bodies.—Otto C. Hageman, New York, N. Y.
 510,321—Sterilizer for Surgical Dressings.—Eduard Boeckmann, St. Paul, Minn.
 508,506—Process of Treating Gutta-Percha or Balata.—Paul C. Beiersdorf, Altona, Germany.
 508,592—Obtaining Frlable Coloring Matter From Dye-Wood Extracts.—Peter T. Austen, New Brunswick, N. J.
 508,608—Manufacture of Rosin.—Richard L. Etheridge, Quitman, Mass., assignor of one-half to Thomas W. Hand.
 508,682—Apparatus for Gumming and Cutting Strips, Labels, etc.—David W. Collins, Philadelphia, Pa.
 508,747—Manufacture of Crystallizable Sugar by Synthesis.—Jean E. Pellegrini, Paris, France.
 508,777—Process of Manufacturing Toilet Soap.—Theron C. Stearns, New York, N. Y.
 508,796—Process of Making Aluminum Fluoride.—Wilhelm Ackerman, Gleibichenstein, near Halle-on-the-Saale, Germany.
 508,804—Process of and Apparatus for Dissociating Salts of Alkalies by Electrolysis.—Henry S. Blackmore, Mount Vernon, N. Y.

- 508,882—Preparing Fermented and Distilled Liquids, Extracts and Solutions.—Charles Hornbostel, New York, N. Y.
 509,055—Sallylate of Tolydimethylpyrazolon.—Hermann Thoms, Berlin, Germany, assignor to Ludwig Friedrich Riedel, same place.
 509,163—Process of Liberating Ozone.—Nicolas Helmer, New York, N. Y.

TRADE MARKS.

- 23,629—Germicides, Disinfectants and Other Deodorizing Preparations.—Chemische Fabrik auf Actien, Vormals E. Schering, Berlin, Germany. The word "Formalin."
 23,630—Eucalyptus Oil for Medicinal and Other Uses.—Thomas Ingham, Rockhampton, Inghamstown, and Wallaroo, Queensland. The word "Wart" and the pictorial representation of an eucalyptus wart.
 23,631—Cough Elixir.—Marion A. Lemm, Weehawken, N. J. The letters "M. A. L."
 23,632—Toilet Soap.—Colgate & Co., New York. The word "Bee."
 23,658—Certain Named Medicines.—Charles E. Brunning, Indianapolis, Ind. The representation of an electro-therapeutic medical appliance embodying a belt from which are suspended plates and above which is arranged a series of plates, said belt and plates being connected by chains.
 23,659—Certain Named Medical Compounds.—Jay E. Fox, Columbus, O. The word "Hypothermal."
 23,660—Remedies for Nervous Disorders.—Morrison & Banta, New York, N. Y. The word "Neurastcline."
 23,661—Remedy for Seasickness.—Francis R. Tottenham, Victoria, Canada. The words "Ad Astra Sequor."
 23,662—Oily Medicinal Preparation for Internal and External Use.—William E. Pearson, Paris, France. The word "Vasogen."
 23,663—Oily Medicinal Preparation for Internal and External Use.—William E. Pearson, Paris, France. The representation of a sphinx.
 23,664—Disinfectants.—Newton, Chambers & Company, Limited, near Sheffield, England. The word "Izal."

DESIGNS.

- 22,354—Bottle.—Theodore C. Wheaton, Millville, N. J.
 22,355—Back for Toilet Brushes.—Charles C. Wentze, Providence, R. I., assignor to the Howard Sterling Company, same place.
 22,441—Bottle.—Frank M. Winn, Salem, Mass. The design for a bottle.
 22,624—Perfumery Holder.—Daniel R. Bradley, New York, N. Y.
 22,663—Syringe.—Charles W. Treverton, Scranton, Pa.
 22,683—Atomizer-Body.—William J. Evans, New York, N. Y., assignor to McKesson & Robbins, same place.
 22,705—Soap Dish.—John C. Bugh, Columbus, O.
 22,728—Holder for Soap Cups.—Lucetta Bradfield and Roselma C. Riggs, Harrisonville, O.
 22,757—Nasal Tube.—Alfred G. Ely, New York, N. Y., assignor of two-thirds to Charles Christopher Ely and Frederick Ely, same place.
 22,835—Bottle.—Edward M. Cone, Newark, N. J.

THE MARKETS.

New York, December 25, 1893.

The drug market at present is in a state of quietude and, as in previous years, the last two weeks of the year have been devoid of interest and business. It was thought by some that, owing to the depleted condition of stocks, business would pick up a little, even in the face of stock taking, but they have been disappointed. Prices continue to have a slight upward tendency, and the dealers offering inducements to stimulate trade are few, all seeming to be of the opinion that business will be replenished at prices which the absolute necessities of the buyers will serve to stiffen.

That prices will continue to advance there is no doubt, owing to the fact that, for the past few months, many articles have been sold below the cost of production or importation, and dealers will seek to reimburse themselves for the losses and sacrifices they have been compelled to suffer.

The drug trade comes in for an unusual share of attention in the revision of the tariff, and considerable fault is being found with the feature of the Wilson Bill, which restores ad valorem duties. The drug section of the New York Board of Trade held a meeting on December 14, and unanimously passed a set of resolutions condemning the ad valorem rates, and advocating specific duties. The resolutions were forwarded to the Ways and Means Committee at Washington, and to Chairman Wilson. It was claimed that ad valorem duties would have a tendency to increase the importation of inferior goods. The committee having this resolution in charge was composed of the following gentlemen, all well-known as large importers of drugs and chemicals: Chairman, J. H. Stallman, of Stallman & Fulton, Theodore Welcker, of Merck & Co., William S. Mersereau, of W. H. Schieffelin & Co., Victor Koechl, of Schultze-Berge & Koechl.

OPIMUM.—Has advanced though the demand remains inactive and without interest. As this staple seems to have touched its lowest point, indications are favorable for a decided advance. The rumor that opium is in the hands of manipulators and was reduced for the purpose of speculation seems to be entirely without foundation. The ruling quotations at present are \$2.20 to \$2.35 in case lots.

POWDERED OPIMUM.—Also shows a slight advance and is now quoted at \$3.15 to \$3.25 in bulk.

QUININE.—Is the one active article on the list; buying continues large and the amount of contract orders fully up to the average. The long looked-for advance in manufacturers' prices has come at last. The foreign manufacturers, through their agents, have made an advance of 2½¢ and the American manufacturers have made an advance of 3¢. The following schedule is now offered by the representatives of foreign manufacturers: 100-oz tins, 27½¢, 50-oz tins 23½¢, 25-oz tins 24½¢, 5-oz 27½¢, 1-oz 29½¢. In the usual jobbing quantities. The prices of American manufacturers are ¼¢ above these quotations. Prices are expected to advance after January 1st.

ALCOHOL.—Is without change in quotations; only a light business is being done: \$2.24 to \$2.25 with usual discounts.

ERGOT.—Only a small business in a jobbing way is being done at the nominal quotations: German 32½¢ to 35¢, Spanish 37½¢ to 40¢.

BLEACHING POWDER.—Is without special features of interest. Prices remain without change at \$2.37½ to \$2.50 in casks.

ONALIC ACID.—Has advanced. The foreign market has assumed a firm position and 7c to 7½¢ in casks seems to be the inside prices.

CHLORATE POTASH.—The market here has not advanced in sympathy with the market abroad and quotations remain at 14½¢ to 16c in kegs.

BORAX.—Is without change at former quotations.

SALICINE.—Has shown a further advance, and is now offered at \$1.75 to \$2.25.

CITRIC ACID.—Has declined. Manufacturers' prices remain at 45¢, but goods in outside hands are freely offered at 41c in kegs.

COCAINE.—Is in good demand. Prices are held from \$4.75 to \$5.50.

MENTHOL.—Is scarce. Stocks here are very light and the market continued firm with prices ranging from \$5.00 to \$5.50.

ROCHELLE SALTS.—This article suffers somewhat from the hand to mouth policy of the jobbers and orders given are small and for immediate wants: 19c to 20c in barrels is asked.

CREAM TARTAR.—Is in small demand only, with an inclination to cut prices in the west, goods being offered at 18c f. o. b.; lowest quotations ruling here 19c to 20c.

TARTARIC ACID.—Is meeting with good demand at 22½¢ in barrels.

FLAX SEED.—Owing to the recent cold snap has taken a fresh start and orders are good considering the time of the year; prices quoted: \$5.25 to \$5.50 for regular barrels of 182 lbs. Ground is offered at 25¢ to 2½¢ per lb.

CACAO BUTTER, BULK.—Foreign is very scarce, but a number of arrivals are expected. Prices remain without change: 35c to 40c.

QUICKSILVER.—Is without change at previously quoted prices.

CARBOLIC ACID.—Is dull and without business. Prices vary as to quality and brand: 20c to 26c for pounds in cases seem to be the average prices.

GLYCERINE.—Is passing out in good quantities and a decline in price is noticed. Prime goods can now be had in drums at 13½¢ to 14c, 50-lb cans in case lots 14½¢ to 15½¢.

COD LIVER OIL.—Is now in good active demand, and nothing is being offered below \$20.00, the best goods being sold at \$22.50 to \$23.50.

GUM CHICLE.—Is easier and only a light demand is noted: 30c seems to be the ruling quotation.

GUM ASAFOETIDA.—Stocks still remain small and a number of orders placed several weeks ago remain unfilled. Inquiries at headquarters show no likelihood of an immediate change. Owing to the absence of strong demand, prices remain without change.

GUM TRAGACANTH.—A very firm market with a slight advance in prices is shown, and some business has been done in prime goods.

CAMPHOR.—Remains dull. Manufacturers' prices remain at 45c to 46c for barrels and cases, but in second hands the prices can be shaded.

BALSAM FIR, CANADA.—Is high and scarce, best goods are obtainable at \$3.75 in barrels, \$4.00 to \$4.25 by the gallon.

BALSAM COPAIBA.—Is higher. The market is very firm and prices show an upward tendency: 40c to 45c for Central American is asked.

BALSAM PERU.—Is firm and while prices show a tendency to advance no changes have taken place as yet. Prices asked are \$1.60 to \$1.75.

WITCH HAZEL.—Is in active competition and the number of different brands in the market are offered at all kinds of prices, but for best grades 15 per cent alcohol, 55c to 65c is asked.

OIL CUBEB.—Is weaker and the present low price of the berries favors buyers: \$2.00 to \$2.40 is asked.

OIL PEPPERMINT.—Stocks in first hands are held at fancy prices. Producers do not seem anxious to sell or to make concessions to stimulate active buying, in consequence of which, little or no business is being done, while further advances are talked of as likely to take place. The following prices seem to be inside quotations: Western \$2.55 to \$2.65, New York, \$2.75 to \$2.85, H. G. I., \$3.20 to \$3.25.

CUREB BERRIES.—Continue dull and prices are low and in buyers' favor.

IPECAC ROOT.—Is without active interest or change in price: \$1.45 to \$1.55 is quoted.

SARSAPARILLA ROOT.—While no advance has taken place, the market is firm, and no new lots are known to be in transit, or on the way here: 10½¢ to 11c is quoted.

ORRIS ROOT.—The firm tone of the market abroad and the recent advances that have taken place there, have caused the market here to assume a firmer tone; no advances have taken place as yet, but it is likely prices will advance in sympathy with the foreign market. Florentine is held at 28c to 30c, Vienna at 16c to 20c.

RHUBARB ROOT.—Remains without change, only a light business is being done.

CARDAMOM SEED.—Prices have advanced about 30 per cent all along the line on account of the small stocks on hand. Prices range from 75c to \$1.25 for the different grades.

CANARY SEED.—Shows greater activity on the part of buyers and sellers and a fair business is the result. Smyrna is quoted at 25¢ to 31¼¢. Sicily at 3c to 4c in bags.

CELERY SEED.—Is lower. The market is quiet and without interest, but holders have made no concessions to interest buyers. 20c seems to be an inside quotation for jobbing quantities.

HEMP SEED.—Is easier in supply, several large lots having arrived, and prices are lower as a result. Russian seed is offered at 3c to 4c.

Under date of December 16th, 1893, Rosengarten & Sons, of Philadelphia, announce the following advance in sulphate of Quinine in lots of 50 ounces or more: 32c per oz, including 1-oz vials; 30c per oz, including 1-oz cans; 27c per oz in 5-oz cans, 26c per oz in 25-oz cans, 25½¢ in 50-oz cans and 25c per oz in 100-oz cans. The Bromides of Ammonium, Potassium and Sodium in bulk, 50-pound lots are quoted at 47c, 38c and 42c per pound, respectively.



ALBERT B. PRESCOTT.

VERY few pharmacists in the United States are unfamiliar with either the name or the features of Dr. A. B. Prescott. Nearly every town numbers among its druggists someone who has profited from his teachings in the class room or had personal meeting with him at pharmaceutical conventions. His best work has been in the service of the Department of Pharmacy of the University of Michigan, which he has brought to be the capstone of the pharmaceutical educational structure, and in which connection he has ever and consistently sought the advancement of the profession by providing only the best qualified followers of it. His influence thus exerted is sufficient reason for his reputation, though others are not lacking.

Albert B. Prescott was born in Hastings, N. Y., December 12, 1839. He followed scientific studies during his early manhood, and at the mature age of 30 he entered upon the study of medicine, obtaining his degree from the University of Michigan in 1864. Then receiving a

commission as surgeon in the army, he served till late in 1865, when he returned to his alma mater, having been appointed assistant professor of chemistry. In 1870 he was made full professor of organic and applied chemistry and pharmacy. A year prior the Department of Pharmacy had been organized and the position of dean of that department, which was then given him, is still his. Later, in 1880, he assumed directorship of the chemical laboratories of the university.

There is little need to enumerate what has been accomplished for pharmacy by Dr. Prescott. In his function as an instructor the influence of his high ideals is ever being extended by his students. As a chemist, he is favorably known abroad, and at home is considered authority, particularly in sanitary matters, and he has had an extensive forensic experience.

He is the author of several works, accepted as standards, the more notable ones being "First Lessons in Qualitative

Chemistry," "Chemical Examination of Alcoholic Liquors," "Outlines of Proximate Organic Analysis," "Qualitative Chemical Analysis" (jointly with S. H. Douglas), "Prescott's Organic Analysis," etc. His contributions to current pharmaceutical and chemical literature have been voluminous and invariably characterized by thoughtfulness and careful utterance. In pharmacy alone, he has served well in associations, in which he has held frequent official positions, and on the Pharmacopœia and its committee of revision has given valued aid and counsel. In appreciation of his mental equipment and scientific accomplishments, numerous honorary positions have come to him. He has occupied the president's chair in the American Association for the Advancement of Science and in the American Chemical Society, is a fellow of the London Chemical Society and a member of numerous pharmaceutical organizations at home. Pharmacy has no truer friend and abler exponent than he.

ENTERED AT THE DETROIT F. O. AS SECOND-CLASS MATTER

ESTABLISHED 1887

THE PHARMACEUTICAL ERA.

SEMI-MONTHLY.

Issued on the 1st and 15th of Each Month.

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advertising page 30.

EDITORIAL.

WHAT THE DOCTOR THINKS.

For fatuous, crass ignorance the following editorial utterance by a medical exchange is worthy the award of a World's Fair medal. Hear it: "It is the methods used, far more than the ingredients, which make the fine pharmaceutical products now so much used of such great therapeutic worth. The formulae used by the manufacturing chemists are generally published for the information and guidance of the profession, but the methods which they employ constitute their legitimate secret, and the druggist is extremely foolish to think that, even with the same formula, he can make in a few minutes, without any previous instruction, a remedy the equal of one which has been for days and weeks undergoing the various steps in the process of manufacture."

THE LANOLINE CASE.

The importance of the suit lately instituted by the owners of the Lanoline patent in England to restrain an English firm from manufacturing a purified wool-fat, mixing it with vaseline and selling it under the name, "Anaspaline," is so great that we publish in full in our trade department the decision of the English judge upon the case. The suit was conducted with great ability upon both sides, and shaming flights of the legal and pharmaceutical professions argued the question of wool-fat from the days of Dioscorides up to the present time. As hydrous wool-fat, "the purified fat of the wool of the sheep mixed with not more than 30 per cent of water," is now one of the official preparations of the United States Pharmacopoeia, the decision will be read with more than ordinary interest. Its bearing upon commercial interests, and the precedent which is thus established for possible application in similar cases, are points which are naturally brought to the front, and they are worthy of the careful attention of all interested in pharmaceutical matters.

GASTRIC SODIA.

Surely the ways of the "Black Pepsin" swindler are devious and almost past finding out. The latest dodge is to have Aunt Mary Soandso, of Grassville, or some other locality, write to country editors telling them of the wonderful results which she has obtained in her butter laboratory by using "Gastric Soda." Aunt Mary usually succeeds in making the editor think that she is a good old soul with a benevolent turn of mind, and he prints her letter in the same column with communications from Taxpayer and Old Subscriber. The local druggist then appears upon the scene in his conventional stage costume, and as he slowly approaches the footlights, it is noticed that

he bears in his hand a circular from the United States Salt Co., New Concord, O., extolling the virtues of "Gastric Soda" as a means of increasing the yield of butter. The advertising which is being done in the newspapers is referred to, and the druggist is advised to lay in a stock of the stuff. As the spectacle of two of the most prominent citizens of a community kicking themselves is not pleasant to contemplate, the advice is offered that the editor and druggist both had better leave compounds of this character severely alone, if they wish to avoid an unpleasant experience.

OWNERSHIP OF THE PRESCRIPTION.

There has been little of precedent for a guide in legal cases involving the ownership of the prescription. But a decision recently handed down by the Supreme Court of Missouri seems to settle the matter, for that state, at least. The case in question involved the constitutionality of the law requiring druggists to carefully preserve all prescriptions compounded by them or those in their employ, numbering, dating and filing them in the order in which they are compounded, and producing the same in court or before any grand jury whenever lawfully required, neglect or refusal to do so being deemed a misdemeanor. Inasmuch as this law requires the prescription to remain in the custody of the druggist, it would seem that the customer and the physician have no legal right to it, for the decision upheld the law. A case in Detroit some months ago was decided in a lower court in favor of the customer, though had it been carried to the Supreme Court the result might have been otherwise. But the Missouri case is interesting from another reason, in that it is held that druggists cannot be required to produce all of the prescriptions compounded by them or filed by them during any specified length of time, however short, to be inspected and inquired into by the grand jury, no matter what ailments they may have been prescribed for, or for whom, as that would be an intrusion upon their private affairs and business, and without warrant of law. A subpoena to compel the production of prescriptions, even in a proper case, should describe them with some kind of particularity.

DRAW THE LINE.

This is the season of the year when the retail druggist is groaning under an avalanche of patent medicine almanacs, which are sent to him to be distributed for the purpose of advancing the sales of various remedies which their pages describe. He is supposed to employ himself diligently in the distribution of such printed matter to the public, or in other words, to assume the onerous position of general advertising agent for the introduction and sale of the goods which these almanacs so strongly recommend.

It is a well known fact that many of the goods thus advertised are for sale by cutters and outside dealers, which deprive the druggist of his legitimate profit, and our advice to druggists is to positively refuse to display in their stores, or distribute, the printed matter of any patent medicine manufacturer whose goods are sold at cut rates in his locality. The time has come when the druggist should not be used as a cat's

paw for pulling these cutters' chestnuts out of the fire. We know of one druggist who recently wrote to a manufacturer in response to his solicitations for a supply of calendars, as follows: "We do not want any calendars or other printed matter, nor do we intend to distribute any more printed matter for the goods handled by cutters."

This is the position that every druggist should take, and he need only apply the rule to the sales of such goods by cutters in his immediate locality. If such goods are handled by cutters in your locality positively refuse to have anything to do with furthering their sale. There are plenty of reputable manufacturers of patent medicines who will do all they can to prevent their goods from being handled by outside dealers and sold at cut rates, and if the druggist wants to know on which side his own bread is buttered, he will confine his efforts to the distribution of only such printed matter as comes from manufacturers who protect the retail drug trade.

THE "C. H."

While the phrase "calamity howler" is one of comparatively recent coinage, the character which it represents is one of decided antiquity. In addition to bolus, the much-afflicted Job was compelled to give him, or several of him, audience, and listen to his doleful presentation of views upon (perhaps) the hardness of the times, the tariff and free coinage in the land of 'Uz. But we remember that Job finally pulled through with all his troubles, and if we can credit the theory that history repeats itself, the lesson should not lose its application to our modern instance of 1893. The calamity howler has been our unwelcome guest for the last six months. While we did not welcome his coming, we can with hearty good will speed his parting. While we did not go into hibernation with our usual amount of fat, and will probably emerge next spring in an emaciated condition and rather wabbly about the knees, we have not lost our characteristic American energy and will be prepared to make hay when the sun next comes our way. In summing up accounts for the year 1893, the fact cannot escape attention that, while the disasters are given due prominence, there is an universal expression in undertone that we are badly hurt, but not near as badly as we expected. It is beginning to be realized that the earth is pretty well provisioned for a siege after all, and that the fiat, "Let there be a panic" (and there was a panic), which was sent forth last summer was a mistake and should not have been issued, and there now seems to be a decided inclination to reverse this decree to "Let there be good times." But we cannot overlook the fact that the calamity howler has irritated us with facts during his disagreeable stay. He has gleefully directed our attention to trouble in Australia, in Argentina, in England, in Germany, and to our own crowds of unemployed. He has sat at the fireside of the druggist and talked "cut rates" and general demoralization with great vigor and exultation, never mentioning the fact that wheat only costs us sixty cents a bushel. But we have no time to listen to him further, we are too busy just now, and expect to have all our time fully occupied this year.

Our funny men with pictorial abilities have depicted 1833 as a decrepit old man making such haste as he can to disappear before the new drop curtain is rung down. Let poor old "C. H." join him. He may find room in among the great crowd of played out years to stand and blow his battered horn to an audience to his liking.

PRICES IN ADVERTISEMENTS.

It seems to be the generally accepted opinion among advertising experts that the advertisement from which direct returns are to be expected is the one that gives prices. The day has come when the ordinary merchant finds it to his advantage to mark all his goods in plain figures, and he carries the idea to its uttermost limit by placing his leaders in the show window, or even on the pavement, and covering them with price placards sometimes as large as the goods themselves.

He knows that a modest announcement, informing the public that his goods are the best and that they are sold very cheaply inside the store, or that he has an exceptionally fine lot of good and cheap shoes on a counter up on the third floor back will not attract even a casual glance from the passer by.

The same idea will apply to the means employed to sell goods through an advertisement. The man who entered a store to inquire the price of an ordinary appearing vase which he saw in the window looked somewhat sheepish when informed that the price was \$500, and he really thought that the clerk was endeavoring to stifle a smile while noting his discomfort. The consequence is, he now has an aversion to entering that store, even though the feeling is so slight that he can hardly admit that it exists.

A similar instance is that of a druggist, who, upon reading a clever description of an apparatus for some branch of chemical research, became quite enthusiastic, wrote the manufacturers congratulating them on their enterprise in manufacturing such an affair, and informed them that he was very desirous of obtaining such an instrument. The return mail brought him the information that the price of the article was \$350, or about one-third of the druggist's yearly income. The manufacturers have not heard from the druggist since, and he performs his daily vocations with the air of a man who has run against a confidence game. If questioned, he would perhaps deny the existence of any feeling, and even if he admitted it he would despise the triviality of the causes which produced it, but at the same time his enthusiasm has been dampened to a degree which will require considerable heat to again be raised to the inflammable point.

The trouble of writing a letter to obtain prices on an article which has attracted attention, will often disturb a finely adjusted scale which evenly balances with pans which are loaded with two questions, viz.: "To buy?" or "Not to buy?" and cause the latter to dip downward in a very decisive and emphatic manner. The moral to be derived from these incidents is quite obvious—give prices. With these before him, a customer can decide quickly if he does not want a thing, and if he does not decide quickly he will have something tangible in his mind to turn over in arriv-

ing at a decision. If he has to wait a week before receiving quotations, he may have lost all interest in the matter by the time they arrive.

SPECIFIC GRAVITIES OF THE U. S. P.

The table of specific gravities of pharmacopoeial preparations, which is presented in this issue is, or should be, very acceptable to the pharmacist. But there are those who will question the value of such a compilation, hence a word of advice as to the proper application of the table is not amiss. In tests for identity, purity and strength of very many chemicals and galenicals the specific gravity is relied on greatly, in all liquid preparations furnishing an indication of the proportion of dissolved matter present. There are many preparations of the Pharmacopoeia which should be made exactly of the specific gravity prescribed. For instance, if the solution of chloride of iron be of too low a specific gravity, it is evidence that it is not of the proper iron strength. Upon dilution with alcohol to form the tincture of chloride of iron, the error is made greater and more serious. Then, in the neutralization of an acid with an alkali, particularly in large operations, it is very essential that the exact strength of both acid and alkali be known, and this is most easily effected by taking the specific gravity. Then again, if at one time in making a pharmacopoeial preparation, the product be of the proper specific gravity, and at another time the same preparation, made from apparently the same quality of ingredients and after the identical method, but prove of deficient specific gravity, this fact is in itself evidence of something wrong. If, say, certain fluid extracts be always made after the same formulas, but the products vary within wide limits as regards specific gravities, the presumption is that the qualities of the crude drugs or the strengths of the menstrua vary. Specific gravity can be employed in many ways as a check upon manufacturing processes, as a test for the quality of supplies. The druggist should, invariably take the specific gravity of every barrel of alcohol and every carboy of ammonia purchased, and he should always see that any preparations he manufactures are within the requirements of the Pharmacopoeia. Those who are accustomed to taking specific gravities, as above indicated, will, at once, appreciate the value of the table, and those who have not given this subject proper attention, would find it to their material and financial interest to institute a reform in this respect. A difference of a very few per cent in the strength of a barrel of alcohol or a carboy of ammonia may occasion loss of quite a considerable sum, and the aggregate of many leaks of this nature is by no means to be considered.

MONGREL SCIENCE IN THE A. P. A.

At the recent meeting of the A. P. A. the chairman of the section on Scientific Papers offered contributions showing the results of his examinations of oil of cloves and oil of turpentine. From an imposing array of figures, claimed to be those arrived at from his own personal analyses and tests, he drew the conclusions that the Pharmacopoeial requirements for oil of cloves are altogether unsatisfactory, and the various well known tests to deter-

mine the quality of oil of turpentine he commented upon in a similarly adverse manner. These papers were published in full by a number of pharmaceutical journals, as was natural, for it is not expedient and seldom even possible for the editors of journals to establish the correctness of the assertions in papers of this character. But, as was equally natural, other chemists, of experience in valuing these particular products, at once took occasion to examine the quoted figures very critically, with the result that readers of pharmaceutical literature have been regaled with some astounding statements to the effect that the author of these papers was not competent to conduct the analyses in question, and farther than this, it is not only implied, but plainly stated, that he did not obtain the figures quoted, one critic insinuating that they were falsified or wholly fictitious. While we do not believe that any particular advantage is to be gained by a wider agitation of this unpleasant matter, believing it best for the party attacked to fight his own battle with his critics and establish, if he can, the statements he promulgated, there is one feature which has a greater than a mere personal significance. This is that the American Pharmaceutical Association should exercise far greater care in the admission of papers which it is afterward to publish to the world under its seal of approval. One of the critics reasons that although it is believed to be the policy of the A. P. A. to disclaim any responsibility for the correctness of papers read at its meetings, it is high time that some censorship or control should be exercised over their publication in the official proceedings. That there should be presented papers of such a nature as those concerned in this controversy must prove not only derogatory to the scientific aims and status of the association, but very humiliating to all who desire to cherish and promote the higher ideals and interests of American pharmacy.

These critics have made out a very strong case against the author of these two papers, and, so far, we have seen no rejoinder from him or attempt to controvert their opinions. If he be unable to answer their attacks, certainly their strictures upon his methods and upon the laxity of the A. P. A. in regard to the acceptance of papers are well warranted. The pharmaceutical world has a right to look upon the A. P. A. as authority, and naturally accepts with very little question papers which are given out in its proceedings. The A. P. A. is supposed to represent the higher thought and progress of the profession, and it is certainly humiliating to discover that certain so-called scientific papers are really bosh.

We are willing and anxious to put the most charitable construction upon this matter, but it is certainly unfortunate for the author of these two papers that he has come into conflict with men who have made it their special work to become wholly familiar with the methods of valuing products of this particular nature. The general chemist, whatever be his ability, is not competent to test volatile oils without special training in this direction, and, if this chemist does not possess this special qualification, he was foolish to step in where "angels fear to tread."

PHARMACEUTICAL EDUCATION AND REQUIREMENTS IN AMERICA.

The address of Mr. Martin, printed in full in this issue, wherein he offers to English hearers the results of his observation of matters pharmaceutical in the United States, has provoked much interest on this side of the Atlantic, and the discussion is apt to become more animated the wider his views are disseminated. Mr. Martin is to be congratulated on his manner of speech, which is frank, outspoken, free from any suspicion of personal feeling, and offered with an evident desire to present the best of things, as he saw them. The American is not particularly thin skinned, and he very often is really pleased to have his faults and shortcomings pointed out to him, but he always wants to be sure that they are really faults and shortcomings in fact rather than in the mind of his accuser. A number of Mr. Martin's strictures are well warranted, we must admit, by the conditions existing in this country, others are a little too severe, resulting from observation, which could not, under the circumstances, have been other than rather superficial. His criticisms on the whole, will certainly be useful.

We may be a little hurt by his evident non-appreciation of railway facilities in the United States, but we are consoled by the belief that very probably he was the holder of some World's Fair excursion ticket, rather than of a pass upon the "Exposition Flyer," which carries the traveler from New York City to Chicago in less than twenty hours, a period of time which, in England, we are told, would be sufficient to run a train clear off that little Island. Then, too, he doesn't like the soda fountain and cigar case in the drug store, but the American druggist is a very accommodating gentleman, and, as the public want these articles, he is very ready to supply them. The United States is a new country, it celebrated its centennial less than twenty years ago, and the quadricentennial of its discovery was the occasion of last summer's great celebration at Chicago. Thus it is that conditions here have not those features of solidity and unchangeableness which characterize many of the British Institutions, and pharmacy is not exempt in this respect. Then, this is a vast country, and the conditions existing in the far west cannot be justly compared with those obtaining in the more cultured east. Business habits and methods of the south differ from those of the north, and it is not surprising, though perhaps it be regretted, that Mr. Martin finds considerable lack of uniformity in the laws regulating the practice of pharmacy and in the methods of teaching the art.

His estimates of the boards of pharmacy are, we believe, lower than they would be with fuller acquaintance, and he seems also to underestimate the support that our pharmacists in general give to the colleges which require extended laboratory instruction (and there are such). He is justified in his belief that the boards of pharmacy are laboring under a disadvantage in that they have no adequate laboratory facilities for ascertaining the candidate's knowledge of practical dispensing pharmacy. This is a lack which all the boards recognize, and which several of them have nearly or quite overcome, and the others are

working to bring about the needed reform. The British pharmacist is working under conditions which cannot be compared with those obtaining in the United States. Here, a fundamental principle of the government is that every man has a right to enter upon any profession or any calling, provided he shows himself competent to discharge the duties of that calling, but, in drafting laws to regulate the professions of medicine and pharmacy, the result of many men of many minds has been and is that the ideal is made very hard of attainment, though it must be admitted by all that, even under the restrictions which exist, pharmacy has shown a steady advancement and improvement.

Readers of Mr. Martin's address will be able to estimate the value of his criticisms, which will certainly be beneficial in the main. There will prove to be no lack of defenders of American pharmacy and, for the present, we leave the matter for the consideration which is sure to be accorded it. All will await, with interest, Mr. Martin's forthcoming address to the society of which is the president, when he promises to tell what he thinks of British pharmacy, and, perhaps, we will find that there are some things in the profession as practiced in the mother country, which are susceptible of alteration for the better.

ADVANTAGES TO THE PHYSICIAN OF DOING HIS OWN DISPENSING.

Our medical exchanges have opened their columns to a liberal discussion of this question and have presented contributions both weighty and flighty. But a summary of the advantages has been drawn up from which we learn that they are as follows: 1. Making a physician more independent. 2. Offsetting the practice of substitution among certain druggists. 3. Securing pure and fresh drugs. 4. Preventing the refilling of prescriptions without the physician's authority. 5. Shutting of the practice of counter-prescribing and selling of patent medicines. 6. Centering all profits upon the physician. 7. Affording cleanliness in the preparation of medicines. 8. Educating the physician in practical pharmacy. 9. Inspiring confidence in the patient. 10. Checking the growing use of proprietary medicines by the medical profession.

Some of these advantages we would not attempt to deny, especially do we believe that the physician has all of justice in his opposition to substitution, refilling of prescriptions, and counter-prescribing. We would take exception, however, to some of the other conclusions. The physician is not made more independent. On the contrary, he is in danger of being forced to neglect medicine for pharmacy, for, if he has a good practice, it would necessitate employment of all his time to compound the required remedies and it is obvious that he could not do justice to both or either. We venture to deny, too, that he would be sure of getting pure and fresh drugs. Rather, in most cases, he would get inferior ones. The druggist who supplies a dozen doctors and innumerable customers assuredly has better advantages for purchasing than has the individual physician who must buy in very small lots alone. As to profits to the physician, these are not always realized. He may buy some things cheaper through purchasing larger quantities than his re-

quirements really demand, but the loss on overstock usually more than offsets what he gains in prices.

Cleanliness in dispensing would not be attained, as this comes only through much practical experience, and if any physician will attempt his own dispensing, he will quickly discover that cleanliness, accuracy and neatness are out of the question if he must carry on his pharmaceutical work between professional calls and must keep his instruments clean and in their proper place ready for instant service. Some of our druggists are not any too neat in their work, but even the worst are better in this respect than the physician, we fear, would prove. That by dispensing his own remedies the doctor would become versed in practical pharmacy is a ludicrous assumption, and we would ask what of the results to the patient while the physician was becoming educated? Medical colleges give no training whatever, worthy the name, in pharmacy, and we do not envy the lot of a physician who attempts to pick up this knowledge while in active medical practice. The next quoted result, that of inspiring confidence in the patient, would be far from following as a natural corollary. Rather, were the patient to discover that the physician is picking up facts in practical pharmacy, his confidence would be more prone to leave him than to be increased.

But we are one with the physician in his desire to diminish the use of proprietary preparations and to decrease the practices of counter-prescribing and of substitution by unworthy, unprincipled druggists. The refilling of prescriptions is a matter very hard to adjust. In the majority of cases the physician has the remedy in his own hands by directing that the prescription be not refilled without special order, but, many times, the druggist finds himself placed between the upper and nether millstones, represented by the physician and the patient, the latter insisting that the prescription is his to do as he chooses with.

A contributor points out a number of inaccuracies which he has discovered in the new Pharmacopoeia. No one expects this work to be absolutely without error, and that so few have been discovered in it is really a matter of congratulation. Very few of serious import have so far been pointed out, the majority of errors being of a nature not to lower the value of the work as a practical guide.

RELATIVE TO THE WILSON TARIFF BILL, the Chemist and Druggist takes exception to the ad valorem system of duties. Our contemporary believes that where such duties are in force, goods are persistently declared below their true value, and, even in countries where the officials have power to purchase articles compulsorily from the consignors at their declared prices, if it appear that they have been declared at less than their true value, the duties which arise tend to great complication. Then it is argued that many goods are liable to sudden price fluctuations, which render the equitable imposition of ad valorem duties rather difficult. With the press crying down specific duties on the one hand and ad valorem on the other, it is not difficult to imagine the mental perturbation which must affect the ways, and means committee.

THE PHARMACEUTICAL MEETINGS IN CHICAGO IN 1803, WITH SOME NOTES ON AMERICAN PHARMACY.*

By N. H. Martin, F. L. S., F. R. M. S.,

President of the British Pharmaceutical Conference, Delegate from the Pharmaceutical Society of Great Britain to the American Pharmaceutical Association and to the seventh International Pharmaceutical Congress at Chicago.

I had, as a member, determined to attend the meeting of the American Pharmaceutical Association at Chicago, and to this circumstance was due the fact that the council of the Pharmaceutical Society did me the honor to appoint me as one of the delegates to that body, and also to the International Congress which was to meet in the same city immediately after. Through the courtesy and acquiescence of my distinguished colleagues, Mr. Carteighe and Mr. Martindale—who are always with you here in London—who have been invited to give you an account of my journey to Chicago and of some of the impressions which I have received concerning pharmacy in America. This was my second visit to the United States, and many of the ideas and opinions which I had formed as the result of my first visit have been altered or modified by my second, so that without making any claim to know the minutiae of the practice of pharmacy in a country so vast as the United States, I do venture to think that the opinions I have formed are based upon a reasonably accurate acquaintance with, and interpretation of, the facts of the case and of the conditions which exist. I have had the pleasure of visiting most of the large cities east of Chicago, as well as some of the smaller towns. I have visited and gone carefully over the works of several wholesale and manufacturing firms, and have observed from the outside and the inside many hundreds of retail pharmacies. I have had the privilege of hearing the discussions at the various pharmaceutical meetings which were held at Chicago, and have had conversations with professors and pharmacists from a great number of the states and cities of the Union. From these several sources I have gleaned certain facts and formed opinions, but in stating them to you I shall almost without exception refrain from mentioning the names of states, colleges, and persons, so that my remarks may be as free as possible from personal considerations, whether I appear to admire or criticize.

Before I touch on pharmacy just a word as to the journey, as to travel in America, American scenery and, above all, American hospitality. The ocean journey has been so often described that I can scarcely add to it. A journey to New York is no more exciting than a trip to Paris, except that it occupies a few days instead of a few hours; the Atlantic journey is accomplished with so much precision that you may predict within narrow limits the time you will dine in New York or Liverpool. Much of the steamboat traveling on the great rivers in America is delightful, but the comforts and luxuries of their railway service are greatly over-rated. There is simply no comparison between the smooth precision with which our trains run and the rollicking motion of an American express. Of course it varies, and sometimes for a few miles the train

runs smoothly enough, but at other times it rolls and rocks worse than a ship does at sea, except in a storm. With regard to all the accommodations for day and night travel, the Americans have such long distances to cover that they make the best of it, and that is all I can say in its praise. I once heard of a very plucky lady who, having a great horror of the sea herself, held strongly to the opinion that God never intended man to cross the ocean, and hence he sent him sea-sickness as a punishment for his temerity. If the old lady had said God never intended a Christian to live on a train—even the most luxurious specimen of an American train—day and night for a week, I should have felt heartily inclined to agree with her. I must not detain you with any detailed account of American scenery. New York Harbor, New York City, Boston, Philadelphia, Washington, the Hudson, Lake George, the mountains in the vicinity, Niagara, and a host of other places on the eastern border are worth crossing the Atlantic to see and visit, and if any of my pharmaceutical brethren are tired and jaded with work they cannot possibly do better than to take a trip to America. And now, what shall I say of American hospitality except that it is genuine, hearty, sincere, and as big as their great continent. I am convinced that it springs from a deeper source than community of interests in the same pursuit, and dates as they would say "way back" in the decades and the centuries whence we have sprung from the same source; and the history as well as the literature, the discoveries and the triumphs of our race are the joint heritage of America with ourselves.

Chicago well maintained the honor and reputation of America in this particular, and those of us who enjoyed the warmth and splendor of her private and public hospitality will ever treasure the reminiscence as one of the bright and happy experiences of our past. Personally, I have only one complaint, and that is that they were a little too exacting in their desire that I should "say something." To my colleagues, of one of whom it is written that "he always commanded attention whenever he took the floor," and the other, that "his tall, dark, and manly physique distinguished him whenever he rose in convention, and his remarks were always to the point," this was no hardship, but to one so unskilled in public speaking as I am, and who always remembers the thing he ought to have said after he sits down, it was embarrassing, and would have been more so except for the manifest courtesy and kindness of the listeners, who seemed to know what I ought to have said, and who were sure I would have said it if I could. I am not going to entertain you with newspaper and journal paragraphs about the English delegates, but there is one sentence of a personal character which I hope you will forgive me for transcribing. The writer says "Mr. N. H. Martin, of Newcastle-on-Tyne, did not speak as frequently as other visitors from across the seas, but he was valuable in committee work, and added his share to the success of the International Congress, and kept up the dignity, and reputation of our English cousins." I do not know the writer, but I thank him for the kindest thing he could have said about me, and I hope my colleagues on the Pharmaceutical Council, who know my preference for work in com-

mittee over speeches in Council, will be pleased that the same spirit animated me in Chicago. I may say, however, that several times it happened that our president had so well expressed my views and opinions as well as his own, on the subject under discussion, that I felt it was unnecessary to take up the time of the members with any remarks of mine, and I preferred to sit and listen to others.

With regard to the American Pharmaceutical Association, I was exceedingly disappointed to reach Chicago a day too late to hear the president deliver his inaugural address, for although I have read it in print it would have been a treat to have heard it first from the lips of its author. My friend Martindale removed the traces of the railway journey more quickly than I did, and hurried off to the meeting, so that when I arrived he was already seated among the elders in the odor of sanctity. When I came in, a paper was being read, but at the next interval I was invited to the front also, and received a most cordial welcome from President Remington, which appeared to be endorsed by the members present. The papers were then resumed, and I heard some of them read and discussed. Printed copies of the papers were handed around the room as soon as the authors commenced to read them, and as it was my first experience of this being the case I should like to tell you how it impressed me. It seemed to take all the interest out of the paper for the majority of the audience, who could go on with their private conversations during the reading, and yet by glancing over the printed paper could keep themselves abreast of the main idea in it. The effect was that the reader, instead of having an alert, attentive audience, appeared to be performing some sepulchral rite, but when he ceased the critics were very much on the alert in the discussion. The American Pharmaceutical Association is carried on in three sections, one is styled the section on Scientific Papers, another the section on Education and Legislation, and the third the section on Commercial Interests. The section on Scientific Papers was carried on until nearly 11 p. m., and as I was not aware that there would be such a late sitting I missed a considerable part of it. The papers were varied and practical in their character, and the discussions were participated in by a number of members with considerable spirit. There were several very interesting papers presented to the section on Education and Legislation, but one thing struck me very forcibly, and that was the volubility with which men read papers and discussed views and practices without the least intention or thought that they would have a practical bearing. It all seemed academical and inconsequential, and for such an intensely practical people as we usually think the Americans to be, it seemed to me a waste of time. Another striking feature was the frequent appointment of "committees of three." The President's address, instead of being made the subject of a vote of thanks immediately after its delivery, as it would be with us, was referred to one of these committees of three. The result was that no piece of business was debated and finished straight away, but there was an endless succession of appointments of committees and receiving of reports. The latter were frequently interpolated between the reading and discussion of some interesting paper, and

* Read before the Pharmaceutical Society of Great Britain at an Evening Meeting in London, December 13. Reprinted from Pharm. Journal.

formed an interruption which was anything but valuable in the elucidation of the particular subject which was at that moment before the meeting. The appointment of these committees was so informal that it sometimes happened that committees were appointed the members of which were entirely unconscious of it until months after. It was no one's special duty to apprise them of their appointment or to summon them to discuss the subject for the purpose for which they were nominated.

The section on Commercial Interests was vastly entertaining, but certainly not profitable. All that can be said is that they met, they discussed, they sometimes passed resolutions, and they adjourned until another year. A considerable degree of heat and temper was manifested during the discussions in this section, but immediately after the adjournment the resources of Chicago provided an efficient antidote, and it was not long, after the evening meeting, before good will and friendship again reigned supreme. An attempt is sometimes made to induce this society and the Pharmaceutical Conference of this country to take up what are called "trade matters" (the regulation of prices and so forth). If the men who are so anxious upon this score, and so sanguine that good could be accomplished thereby, could see how little it does in America, I think they would cease their demands.

The dominant feature of the American Pharmaceutical Association was the publication and presentation of the first copy of the United States Pharmacopoeia, which, although it is called the Seventh Decennial Revision and is dated 1890, was not published until August, 1893, and is not to be the official guide until January 1, 1894. You have all seen reviews and notices of this volume, and I have not yet had time to examine it with sufficient minuteness to add to what has been written, so far as the intrinsic merits of the details of the book are concerned, but I think every one who has had an opportunity of even the most cursory examination of it will agree with me that it is a volume of which the Americans may be justly proud. The historical introduction which gives us details of the genesis of this national pharmacopoeia, is full of interest, and from it we learn that up to 1840 the Pharmacopoeia committee had been composed entirely of delegates representing medical societies, although "valuable assistance was rendered to the committee by the colleges of pharmacy." Before the committee of 1840 separated, however, provision was made for a convention to meet in 1850, and in this resolution it was decided to invite incorporated colleges of pharmacy to send delegates to that general convention. From this time onward the influence of the pharmaceutical element increased in each succeeding decade, until on the Seventh Decennial Convention there were representatives from fifty-six pharmaceutical associations and colleges of pharmacy, and the committee was composed of about an equal number of members representing medicine and pharmacy. The result, I think, is most manifest for good on every page of the book. It is evidently a practical book, written by men who have used and tested the formulæ for the various preparations included. At page xvii, of the introductory remarks, the general principles to be followed in revising the Phar-

macopoeia are admirable, and I think they may well be taken as a guide in the production of our own standard work.

During the American Pharmaceutical Association week and the following we made frequent visits to the World's Columbian Exposition, a description of which I shall not attempt here. Our president, in his capacity of a British Commissioner, had many opportunities of becoming closely acquainted with that gigantic exhibition, and I hope he will, on some early day, give us a full account of it. The second week was devoted to the meeting of the International Congress, and in this arrangement I think our friends on the other side made a mistake. We were almost entirely the same set of men; we had but one week pretty fully occupied with matters pharmaceutical; we were largely attracted by the gigantic exhibition on the shores of Lake Michigan, and we were altogether not under the most favorable conditions for the serious discussion of the long list of subjects set down for the consideration of the Congress. There were some features, however, which were unique to this Congress, and I must not omit to mention them. The first, after settling the preliminaries of business, the election of officers, and so forth, was the presentation of the Hanbury medal to the late Professor Malsch. You all know the professor was too ill to be present, and that the formal presentation was made by our president, and the medal was received by Professor Remington, president of the Congress, on behalf of his dear friend and colleague, Malsch. Gentlemen, I have often been proud of Michael Cartelghe, but I never felt more pleased with any man than I was with him in presenting that medal. How his speech has read in hard type I do not know, but, delivered as he gave it, it was inimitable and magnetic in its effect. Professor Remington's reply on behalf of his friend was almost equally felicitous, and was touching in its pathetic allusions. Altogether I rejoice that I had the privilege of being present, and I shall never forget the presentation and reception of the Hanbury medal of 1893.

No meeting of the International Congress would be complete without a reference to an International Pharmacopoeia, but our American friends, with the laurels of their own successful book fresh upon them, took a practical and bold step, and carried matters further than had ever been done before, by voting a sum of one thousand dollars to be placed in the hands of a commission, which was to "be employed by this Congress to compile and publish an International Pharmacopoeia." The resolution of which this formed the basis was referred to a representative committee, of which I happened to be a member, and after a full and most careful discussion it resulted in a permanent committee of three being appointed, to arrange with the Pharmacopoeia committees of the various countries for the appointment of a commission to compile an International Pharmacopoeia of potent remedies. This committee, as you will have already seen, is composed of Professor Remington, Mr. Cartelghe, and Anton von Waldheim, and as there seems no more valid reason why such potent substances as tincture of aconite, tincture of opium and others should be of different strengths in the various civilized countries, except that there has been no official body to authorize their

uniformity, I hope that something like international agreement in these directions may now be accomplished.

The representatives from the continent of Europe who attended the Congress were few in number, but some continental pharmacists wrote and contributed some good papers on Education, Pharmacopoeial Nomenclature, etc., which were duly read and discussed, and the publication of which will be valuable.

On the third day of the Congress, an important discussion took place on the relation of pharmacists to public sanitation, and the subject of the adulteration of food, which was taken part in by several Americans, by Mr. Martindale and Dr. Hamlet. Subsequently a committee was appointed, and the following resolution was unanimously adopted: "That in the judgment of the Congress, the educated pharmacist is the natural and proper expert on measures for public tests, not only in the prevention of adulterations, but in the inspection of water supplies, of sewage, etc. The pharmacist is by virtue of his profession the common chemist of the common people." The last sentence reads well, and was received with applause, but before the "licentiate in pharmacy" of America, or the "registered chemist" of our own country will be able to establish any such claim "by virtue of his profession," he must make a much greater effort to become a chemist in reality as well as in name. With regard to the first half of this resolution, so far as it may have any reference to this country, however natural it may be for pharmacists to be the proper experts in the questions of sanitation and adulteration, the duties are already in the hands of persons who are for the most part not connected with pharmacy.

On the broad question of education for pharmacists, the Congress generally approved a four years' apprenticeship, and an enforced curriculum of study, and it was resolved that every delegate should use his influence to bring this about in his own country. An "enforced curriculum!" We have heard of it since education has been talked about; how long is it to remain in the region of talk?

I think I have now in a very cursory way given you an outline of our work and experiences in Chicago; in the further remarks which I intend to make I shall dwell upon some aspects of education, examination, and legislation as they affect pharmacy in the United States. In this I shall make no comparisons between ourselves and our American cousins, but confine myself to giving you an account of things as they exist on the other side. Great Britain has much to do to set her pharmaceutical house in order, and as there is slowly, but surely, approaching an occasion when necessity will be laid upon me, as president of the conference, to give another address, I hope to have a straight talk on British pharmacy and pharmacists. In the meantime there is no useful lesson to be learned from the United States. So far as my observation goes, I must record the impression I have formed that these three all-important parts of pharmacy, education, examination and legislation, are in an entirely chaotic condition in the United States, and that there are two factors, viz., the dollar and politics, which exert such a pernicious influence, and are so powerful, that I fear it will be many years before pharmacy will reach the plane to which.

many of our friends in America rightly aspire, and to which some of their literature which we meet with in this country would lead us to suppose they had attained.

With regard to education, if advertisements and prospectuses were reliable guides, every state and almost every city is provided with most ample facilities, but if we look beneath the surface and examine closely into the machinery for education, we shall find it differs in value—from the college of pharmacy with a seventy years' record of honored names and honest work, to the college (sic) of just as many months or days, with its self-appointed and denominated professors, who have little to commend them as fit for the posts they occupy, except the possession of an ineffable amount of self-assurance, and a fixed determination to be heard and known for their much speaking. There would appear to be no uniform standard of educational attainment even aimed at by many of these bodies, and although several of them have what they are pleased to call junior and senior courses, we find in some cases the latter are a mere repetition of the former, and that no attempt is made to take the student on to any higher plane of education. Most of the colleges, as the complement of an attendance upon their prescribed course and a more or less serious examination, confer upon their students the title of "graduate in pharmacy," but so little is this title respected in America, and so slight is the confidence reposed in its meaning anything, that at the meeting of the American Pharmaceutical Association in Chicago, the following report was unanimously adopted in the section on legislation:

"Regarding the question of registering of graduates of pharmacy without examination by boards of pharmacy, it is the sense of this section that the best interests of pharmacy are secured by the non-recognition of diplomas by the state boards. That there shall be no difference in the treatment of applicants for registration as pharmacists, whether they be graduates or not."

This means that the title of "graduate of pharmacy" is worth so little, forsooth, or is of such variable and uncertain worth, that even the boards of pharmacy (and I shall tell you presently how they are constituted and how they examine) are advised by a national assembly of pharmacists not to accept the diploma in lieu of their own examinations. I quote the following from a report of a state board of pharmacy:

"It is to be regretted that some colleges of pharmacy, in anxiety to increase their popularity or to enrich themselves financially, have become somewhat lax in their requirements for graduation," and then follow some further remarks, and a copy of a correspondence with a conference of the teaching colleges of pharmacy of the United States, in which are pointed out specific instances of laxity, such as crude and raw students with as little as fifteen months' practical experience of the drug business, and being under age, having been granted diplomas. The dean (sic) of one college claimed that "every American college is doing the same thing." The pharmaceutical journals admitted the existence of the evil, although some of them "hedged," but it was mentioned as a significant fact that those journals were the organs of the colleges

complained of. In this connection it will be interesting to record a question and answer in one of the papers presented to the American Pharmaceutical Association. "How can colleges of pharmacy be placed upon a purely educational basis instead of being conducted for the money they can make?" "By the drug trade of each section giving annually one-fourth the sum now expended for association entertainment and commercial interests, to the establishing of an endowment fund for the nearest college of pharmacy, the income to be devoted to practical instruction."

It will be impossible, within any reasonable space, to present to you a synopsis of the teaching in all the colleges of pharmacy in the States, but, broadly, the opinion I have formed is that there is not anything like sufficient time devoted to laboratory practice in any of the subjects taught. Lectures and review quizzes are provided in abundance, and these are frequently given in the evenings. I have before me the time-table of one college, in which there are lectures from 7:30 to 8:30 p. m., from 8:45 to 9:45 p. m., and a review "quiz" from 10 to 10:45 p. m. every night in the week except Saturdays, when there are two lectures and a review a little earlier. It almost takes one's breath away, and one naturally asks—When do the young men have time to think, and to assimilate and digest the substance of so many lectures and "quizzes," in such doses at bedtime? These lectures, and much of the work in many of the colleges, are arranged for the accommodation for men who are expected to be holding situations in some store or pharmacy, and who are spending the balance of their time (the best of their time, I should say) in the occupation of the proprietors of drug stores, where a miscellaneous business of all kinds is carried on, and whatever legitimate pharmaceutical work there is merely an adjunct to the soda fountain.

One college even advertises the fact that students attending it can obtain situations easily and earn enough for board and lodging. With regard to practical work, we find that one of the colleges—which boasts that "the facilities for laboratory instruction are unexcelled in this or any other country," and has a botanical laboratory, a microscopical laboratory, a chemical laboratory, a pharmaceutical laboratory, and a dispensing laboratory—condenses its practical work into two hours twice a week for twenty-five weeks, during which the students are supposed to be so proficient in these various studies that time is found for lectures on "anatomy, physiology, and the application of medicine to diseases, and the application of trusses to hernia." Amongst "elective subjects" we find lectures on the "origin and location of mankind, the origin of trade, botanical gardens, and medical practice," but in order to induce the student to "elect" to follow these he is assured that "the subject is very interesting, and takes up two lecture hours."

I now come to the question of the examinations by which pharmacy is State-controlled in America, and as the result of which the examined man becomes the possessor of a "certificate of qualification and competency," to either become an assistant, or the possessor of a store on his own account. In almost every state of the Union (if not in all) there is now in existence a Pharmacy Act, by which there

is created a "board of pharmacy," among the duties of which is the conduct of the state examinations. These boards of pharmacy usually consist of five men (in some cases there are only three), who are appointed by the Governor of the state for a term of years, and whose duties are only loosely defined, while their powers are as plenary and as absolute as the most despotic monarch could desire. In some states no other qualification is necessary than that the persons are, in the opinion of the Governor, competent to perform the duties; whereas, in other states, it is provided that three out of the five shall be graduates in pharmacy. These boards of pharmacy appoint one of their number as president, and another as secretary, after which they make up various committees. In one board of five members there exists a committee on "complaints and grievances," another on "adulterations and poisons," a third on "auditing and finance," and so on, so that it is no fancy picture that in America the ideal committee of "one" must be frequently reached. I have not desired to look for motives in the selection and appointment of the members of these state boards, but when I tell you that the secretary is appointed for a term of years, that in one state he gets a salary of \$2,000, and an allowance of \$600 or \$700 more per annum for expenses, I think there is room for the suspicion that political services rendered may be at least as powerful as pharmaceutical fitness, in the selection and appointment of one member of the board.

The board does not meet, as we would suppose, in the capital town or the most important center of the state, but is peripatetic, and travels (as occasion may require, I suppose) from one center to another; the consequence is there are no specially fitted rooms or laboratories suitable for the conduct of the practical subjects of dispensing and analysis, so we find these are dispensed with, and the examinations are entirely theoretical and almost entirely written ones. With regard to materia medica no further provision is made than that specimens of drugs, such as one member of the board can obtain by a visit to the chemists' shops in the neighborhood, just before the examination, appear to be handed to the students for identification and written description. The members of the board on reaching a town take up their quarters and hold their meeting at some hotel, whilst the examination may be held in a room in another hotel. On reaching the hotel where the examination is to be held the secretary calls the roll of students in attendance, and the president proceeds to make a speech, in which he informs the candidates, for the first time, so far as I can make out (there appear to be no printed rules or regulations to guide either the board or the students), of the subjects and scope of the examination, and warns them against the "clandestine use of books," "whispered consultations," and other unfair means of attaining the coveted registration of the board. In one case which I have recorded, thirty-one candidates answered to the roll call, and then two members of the board examined the candidates in "toxicology, prescriptions, and materia medica," from 2 to 5 p. m. A recess was then called, and at 7 the class reassembled and was examined in chemistry by another member of the board until 9:30 p. m. The

next morning at 9 a. m. the candidates reassembled, and were examined in pharmacy until 11:15 by a fourth member of the board. This completed the examination so far as the class was concerned, and a recess was taken by the board until 3 p. m., when the full board met again to "consider the answers to the questions," and as the result fifteen candidates were found to have passed a satisfactory examination before the board of pharmacy, and "on motion, were declared licentiate in pharmacy of the State of

"How long this process of examining the papers of thirty-one candidates in five subjects took is not on the minutes, but as a good deal of other work, including administrative and financial business was done, and no "recess" was called, I infer that the decision upon the papers must have been reached with considerable dispatch.

On another occasion, and in another town, the same board met when only three members were present, two of whom (so the minutes record) repaired to the hotel, where seventeen candidates were in waiting. The examination was conducted during the afternoon of one day and part of the morning of the next, and as the result four names were added to the list of "licentiates" of that particular state. You will observe the rejections—over 75 per cent.—are very heavy at this examination, and we may infer from it, probably, that the two members of the board, conscious of their responsibility to examine in five subjects, erred, if at all, on the side of the "safety of the public."

By this board toxicology is one of the subjects included in the examination, and I find among the questions a request for the symptoms of poisoning by aconite and nitrate of silver, subjects which we should relegate to the medical man. In another examination I find "physiology" included amongst the subjects, and such a question set as "Name the largest gland in the human body, and give an account of its functions." It is not necessary for me to add specimens of ridiculous answers to questions, a number of which were included in papers presented to the American Pharmaceutical Association, or to remark that some of the candidates are so ignorant and so little accustomed to handle drugs and medicines that a writer of a paper presented to the association mentions "the possibility of a candidate for registration in pharmacy being poisoned by the examination of samples submitted," but I would ask our American conferees, in all seriousness, if examination by a state-governor appointed board of pharmacy, in the manner and under the conditions I have sketched, can be accepted as anything better than a parody upon pharmaceutical education and knowledge. It is no answer to say that in this state on in that the governor has made the wisest possible selection, and has appointed five absolutely wise, learned, and conscientious pharmacists, who are capable men, able and willing to devote the time to the work; the system is entirely wrong, and no examination, in the true sense, can be conducted with uniformity and a becoming dignity by three or five men touring from one town to another, without a fixed suite of rooms properly equipped with apparatus and specimens for the work.

Lastly, I come to legislation, and on this point I have not much to say. One of

their own writers states "that the laws we have are crude, inconsistent, and therefore without value." I might leave this section of my notes there, but it will perhaps be more interesting to give you a slight sketch of what their laws are like, and I take a copy of the pharmacy law of one of the states, which was passed in 1880. The act consists of eleven sections. By the first it was enacted that "No person shall conduct or keep a shop of any kind for retailing drugs and medicines, or for dispensing physicians' prescriptions, except he be registered." So far this seems an ideal pharmacy act, and the handling for every purpose of drugs and medicines is confined to the educated and examined pharmacist, but unfortunately the second half of the section gives it nearly all away, as it is expressly stated that "It shall be lawful for any person to sell proprietary medicines, or to be the owner of a shop, if he takes no part in conducting, or keeping the same." This last condition is evidently overcome sometimes, as we find an advertisement for "a qualified man to take charge of a shop at a distance, or of one who has a diploma to let."

By the second section a commission of three, to be styled the "Commission of Pharmacy and Practical Chemistry," is to be appointed by the governor, and to hold office for three years.

Third.—The commission shall hold meetings for examination, etc., at least quarterly, "at such time and place as they may see fit."

Fourth.—They shall examine candidates, and if any one is found skilled and learned in pharmacy they shall give him a "certificate stating that he is a skilled pharmacist and authorized to engage in the business of apothecary and druggist."

You will have observed how under such delightfully vague law as this, men are examined in toxicology, physiology, and many other subjects which we do not connect with pharmacy. There is really nothing to prevent the board from requiring a knowledge of astrology and palmistry if this state-governor appointed board of three thinks these subjects essential to a candidate who is to be called "learned in pharmacy."

Fifth.—They shall examine applicants over 18, with two years' experience, and register them as assistants.

Sixth.—A registry to be kept.

Seventh.—A record of the doings of the commission is to be filed with the secretary of state.

Eighth.—"Applicants for pharmacists' (the fourth clause provides for their being registered as "apothecaries and druggists") certificates are to pay \$5, and of assistants \$2, and each commissioner is to receive \$5 a day for each day of actual service, not exceeding fifteen days in the year, and all expenses incurred in the discharge of his duties."

This is evidently a very economical state, and unless there is a good deal of elasticity about the last words of the clause, the state must be blessed with some patriotic men who will travel a long distance and examine men at \$2 and \$5 a head, on the pittance of \$5 a day and expenses.

Nine.—"All pharmacists lawfully registered are authorized to keep spirituous liquors for compounding their medicines."

In one form or another this is a very important clause. We find in one state one of the reasons for a candidate presenting himself as a candidate for examination is that he may as a registered pharmacist procure a "druggist's license to sell liquors," at the nominal fee of a dollar.

Ten.—"All persons violating this law shall be punished by a fine not exceeding \$50 for each week of the said violation."

Prosecutions appear to be among the duties of the commission, and quite a number of convictions are obtained and penalties received.

Eleven.—"This act shall not apply to physicians."

In most states men who possess medical degrees can claim to be registered as pharmacists without examination, and many practice as medical men at the same time they keep open shop.

Before I finish you may ask me—What was the actual condition of the drug trade, wholesale and retail in the states? With regard to the wholesale and manufacturing trade I will say but little, except to record the impression that there is a great disposition to use the power of money and the services and influence of science and scientific men, in fair and unfair attempts to induce medical men to prescribe and use only X. Y. & Co.'s tincture or extract. The result is that a dispensing chemist has to keep perhaps half a dozen different makers' preparations of a pharmacopoeial article. As to the retail trade, so large a proportion of their pharmacies have the appearance of bazaars and refreshment saloons that one is forced to the conclusion that these pharmaceutical adjuncts are really the important sources of the incomes of the proprietors, and we cannot but suppose that pharmacy suffers accordingly. It was with a feeling of intense pleasure that I visited on my last day in New York a retail pharmacy where there was no sign of soda fountain or sundries, and a pure prescription and drug business was done. I think it is due to the proprietor of this pharmacy, who has the courage to conduct a pure drug business, to state his name. It is Mr. Fraser, of Fifth avenue, and I should like to take this opportunity of thanking him, as well as many others whom I met in America, for much courtesy in giving me information.

In conclusion, although in what I have written I may appear to have blamed more than I have praised, I hope it will be received

"In spite of all, as brother judging brother."

There are men who have been, and are, connected with pharmacy in America whom I respect as highly as I do some of our own most distinguished pharmacists. Proctor, Parrish, Bedford, Mar-ko, Maisch, Squibb, Remington, and a number of others, have been familiar to me in their writings ever since my own connection with pharmacy, and I am indebted to them for much of the information which I possess and value. Bedford, Squibb, and Remington, I count it a happiness to have known, and to know personally. It is with the sincere desire that the pharmacists of the great American nation may be worthy of such men that I have written candidly upon what I have observed, which is hindering, and will hinder, the progress of pharmacy in that country.

[Written for the Era.]

A HASTY REVIEW OF THE NEW PHARMACOPŒIA,

By John Ritter, Chicago.

The new Pharmacopœia is now placed in the hands of the pharmacists of the country to be their guide for the next decade. Several important changes are noticeable in this revision. A few of the older preparations have been omitted and a few new ones have been added, making the total number of articles now official nearly the same in number as in the sixth revision. The abstracts, eleven in number, cease to be official, two fluid and two solid extracts have been omitted, but in their stead fourteen new fluid and solid extracts have been added. Of chemicals heretofore not recognized, but which are now made official, are the salts of strontium, the bromide, iodide and the lactate. Although they may give promise of great therapeutic value in the hands of some practitioners, it is very doubtful if more than one, probably the bromide, will survive the decennial.

There is still in the new, as there was in the old, Pharmacopœia, a tendency to drift into a lengthy foreign vocabulary for native drugs, (roots, herbs, etc.) which is hardly warranted. Many of the old English names for roots and herbs are given a subordinate place in the text and in future Pharmacopœias may be entirely omitted. Such names as burdock, blackberry root, blue flag, butter-bark are spoken of as Lappa, Rubus, Iris and Juglans, their proper English names appearing in small type in brackets. If this is to be the rule, it should be strictly adhered to. *Gossypil Radicis Cortex* is known by the English name of Cotton Root Bark. Why not *Gossypium*? By analogy; burdock root being given as Lappa, Cotton Root Bark becomes *Gossypium*. If the English name of "Rheum" is *Rhubarb*, why should not "Anthemis" be called "Chamomile," and again in *Extractum Rhei Fluidum*, if *Rhubarb* in No. 30 powder, etc., why not *Cascara* in No. 60 powder in *Extractum Rhamni Purshiana* instead of *Rhamnus Purshiana*, in No. 60 powder, etc.

A few typographical and other almost unavoidable errors have crept into this, the first edition of the new revision, which must not be overlooked, and the proper corrections made in the next edition. Corrections should be made as follows:

Page 3, bottom line. Preparations: "Pulvis Cretae Aromaticus" should read "Pulvis Cretae Compositus."

Page 100. *Coriandrum*. Last line on page. Preparation: "Confectio Sennae" should be canceled. In the formula given or preparing "Confectio Sennae," 5 minims of oil of coriander are directed to be used, not coriander.

Page 196. *Foeniculum*. Preparation: "Pulvis Glycyrrhizae Compositus" should be erased. Let it read "Infusum Sennae Compositum."

Page 299. Cancel last line "Extractum Phytolacae Fluidum." There is no such official preparation as Fluid Extract of Poke Berries. The only official preparation of Poke is the *Extractum Phytolacae Radicis Fluidum*, the Fluid Extract of Poke Root, the extract of the root, not of the berries.

Page 324. *Potassii Nitras*. Thirteenth line from top of page. Preparation: "Potassii Nitras" should read "Argentii Nitras Dilutus" (vide Errata and Addenda at end of volume).

Page 340. *Rosa Centifolia*, Pale Rose. Fifth line from bottom of page. Preparations: "Syrupus Sarsaparillae Compositus" should be canceled. Observe that *Rosa Centifolia* is neither an ingredient of *Syrupus Sarsaparillae Compositus*, nor of *Decoctum Sarsaparillae Compositum*, nor of *Extractum Sarsaparillae Fluidum Compositum*.

Page 453. *Zea*, Corn-silk. Observe preparation, "Extractum Zeae Fluidum." This the eighth line from top of page, should be expunged. No preparation of corn-silk is official in the new standard.

Preparations should be mentioned in connection with the following official articles:

Page 21. *Acidum Stearicum*. Preparation: "Suppositoria Glycerini."

Page 54. Is not confection of rose as distinct a preparation of *Aqua Rosae Fortior* as is *Tinctura Benzoini Composita* of *Aloe Purificata*?

Page 106. *Elastica*. Preparation: "Charata Sinapis."

Page 333. *Resina Scammonii*. No preparation of Resin of Scammony is given, although it is an ingredient of *Pilula Catharticae Vegetabiles* mentioned as a distinct preparation of Resin of *Podophyllum*. Let the last line on the page read, Preparation: "Extractum Colocynthidis Compositum."

Page 354. *Sodii Bicarbonas*. Preparation: "Pulvis Effervescentis Compositus."

Strictly pharmaceutical preparations, for which working formulae are given in the text, have all their quantities (by weight or by volume) expressed in words and by figure, two exceptions being *Acidum Hydrochloricum Dilutum*, page 14, eleventh line from below, where the quantity of water is given "Water 65 cc.," omitting the "sixty-five cubic centimeters," and in *Acidum Sulphuricum*, page 23, seventeenth line from below, "Distilled water, 1,000 cc.," omitting "one thousand cubic centimeters."

The new Pharmacopœia recognizes as official eighty-eight fluid extracts and thirty-three solid extracts, a total of one hundred and twenty-one extracts. Of the solid extracts not in the Pharmacopœia of 1880, but official in the present revision is one, the *Extractum Jalapae*, page 147. The English name, *Extract of Jalap*, does not appear. It should follow immediately under the words "Extractum Jalapae." Of the fluid extracts, one which is now official and which was not in the Pharmacopœia of 1880, is to be mentioned, the *Fluid Extract of Broom*, page 167. The Pharmacopœia directs that the Broom be exhausted with diluted alcohol and then continues, "Using the same proportions of alcohol and water as before." Cancel, "Using the same proportions, etc." The direction to use diluted alcohol is quite sufficient.

The Pharmacopœia now recognizes thirty-two official syrups. One at least seems to be very anomalous. Page 339, *Syrupus Amygdalae*. Sweet almond, 140 gm., etc., water, 200 cc., syrup a sufficient quantity to make 1,000 cc. The directions given on next page for preparing Syrup of Almond, seem to be greatly mixed. The use of syrup for making 1,000 cc. is entirely ignored; instead of 200 cc. of water which the formula directed, 330 cc. are used, and in addition a sufficient quantity to make 1,000 cc.

The last page in the Pharmacopœia gives a list of "Corrections and Addi-

tions." It mentions page 189 and directs that the following corrections be made there: Line 14 from below should read the "Iron Wire, Iodine," instead of "the Iron, Iodine." The same correction should be made on page 392, nineteenth line from below. This list also directs that corrections be made on pages 440 and 444. The fifth line from below on either page should read: "Five grammes, 5 gm.," instead of "five cubic centimeters, 5 cc.," Corrections should also be made on page 441, twenty-second line from below so as to read: "Ten grammes, 10 gm.," instead of "ten cubic centimeters," and again on page 444, the thirteenth line from below to read "ten grammes, 10 gm., instead of "ten cubic centimeters, 10cc." 10 cc. of water, hot, as directed, are not 10 grammes. The correction to be made on page 303, top line, *Pilulae Antimonii Compositus*, is fully set forth in this list of corrections. It should read: "Castor oil, a few drops at a time" instead of "mucilage of tragacanth, etc."

The Solution of the Subacetate of Lead, the official *Liquor Plumbi Subacetatis*, page 237, and the preparation known as *Goulard's Extract* are one and the same, in fact, the terms are synonymous, just as the *Ceratum Plumbi Subacetatis*, page 84, and *Goulard's Cerate* are identical. The term *Goulard's Extract*, is not to be found in the text of the Pharmacopœia, although reference is made under *Ceratum Plumbi Subacetatis* to its being *Goulard's Cerate*.

The formula for preparing *Spiritus Aurantii Compositus* is given on page 372. The seventeenth line from below reads "Oil of Orange peel 200 cc." The volatile oil of both, the bitter and the sweet orange peel, is official. Which should be used?

Page 415. *Tincturae Herbarum Recentium* is the single exception that does not follow strictly in alphabetical order. Following *Digitalis* in regular order, it would come after *Tinctura Gualaci Ammoniatæ*. (The arrangement followed by the committee was to consider the entire title, thus "turae Herb" precedes "tura Ferri," and our correspondent's objection does not hold. Ed.)

Castanea, chestnut, is found on page 81. *Castanea*. Nat. order *Cupuliferae*. In the word *Cupuliferae* the letter "p" is omitted, an inverted "a" being inserted instead.

Page 25. The third line from the top of the page, for "Oxalic and Uvic acids" read "Oxalic and Uric acids."

Page 60, sixth line and part of the seventh from below reads: "Difference from and absence of more than a small proportion of hyoscyamine." Let it read: "Difference from hyoscyamine and absence of more than a small proportion of it." It is better English. Similar passages occur quite frequently throughout the work. (The committee's grammar is better than the writer's in these instances. Ed.)

Page 307. *Piperinum*. Molecular weight 254.34 should be 284.3.

A hasty glance at the formula given for preparing *Sulphurated Antimony* shows that the product obtained is not true *Kermes Mineral*. Page 44. (a) *Antimonium Sulphuratum Amorphosum*, *Antimony Trisulphide* with microscopic crystals of *Antimony Oxide* about six per cent, *Kermes Mineral*, reddish-brown.

(b) *Antimonium Persulphuratum*, *Penta Sulphide of Antimony Sulphur Aurant*

Antimonil, Golden Sulphide of Antimony, orange red. As stated, the product obtained by the method in the Pharmacopœia is not true Kermes Mineral, but Kermes Mineral with a variable quantity of Pentasulphide of Antimony, which is precipitated by the sulphuric acid. It is a mixture of Kermes Mineral and Golden is very prone by oxidation to be converted Sulphide of Antimony. Kermes Mineral, at least in part, into pentasulphide and oxide of antimony, hence while preparing sulphurated antimony it must be thoroughly and quickly washed and dried and at a temperature not exceeding 30° C., and preserved in a dark place protected from light. Even with all due precautions it retains sufficient moisture for slow oxidation to take place.

After the subsidence of the Kermes Mineral in the process given for obtaining it, the addition of sulphuric acid to the supernatant liquid precipitates the golden sulphide of antimony. The former was formerly known by the name of the "Oxy-sulphure of Antimony," Antimonium Oxy-sulphuratum, which it really is and which is the preparation known as Kermes Mineral, hence cancel. Preparation: "Phillæe Antimonil Compositæ." (The committee's chemist may not coincide in these views. Ed.)

The committee on revision has adopted a rule to exclude all patented, proprietary or copyrighted preparations from the Pharmacopœia. On page 343 Salol is given. Purchasing a bottle, almost the first thing that will attract attention, after removing the wrapper and scanning the label, is that the word Salol is protected by copyright United States Patent Nos. 350,012, 377,311 and 383,306. A derivative of Phenol. If it is to be official, why not call it by its proper chemical name, Phenyl Salicylate, making no allusion to Salol? A great number of new preparations, most of which are protected by copyright, derived from coal tar, and which have been introduced to the medical profession within the last few years as antipyretics, could equally demand recognition and with as much propriety as Salol.

Another preparation which has been introduced into pharmacy since the revision of 1880, and which is now making its debut in the present Pharmacopœia, is the purified kresae obtained from lamb's wool, the Oleum, or Adeps, Lanae, the hydrated form of which is known by the official name of Adeps Lanae Hydrosus, page 27. The purified fat of the wool of sheep mixed with not more than thirty per cent of water. Wool fat or cholestrine, when pure, is not miscible with water. It is only when an alkali or some bland solution, such as muclilage, is added, that water may be incorporated. Take 100 grammes of sheep's wool from a fleece rich in kresae, put it into a percolator provided with a close-fitting cover and extract the wool with ether. The percolate yields, after the ether has all been expelled, a yellowish-brown fat, which is incapable of miscibility with water, but will readily produce an ointment-like mass on the addition of an alkali or a little muclilage. The fat so obtained is not strictly pure wool fat, though sufficiently so for all practical purposes. It may here be remarked that this fat is non-saponifiable, and the ointment-like mass obtained is really only an emulsion. By the process for washing raw wool large quantities of this grease or fat are

obtained as a by-product, which, under the name of Degras, has a large commercial value. Large quantities of this crude wool fat are annually imported into this country. This fat is used in various industries and, as found on the market, is more or less adulterated with other fats and oils, with rosin and water, according to the use that is to be made of it. In the tanning of certain kinds of leather, as a soap stock in the manufacture of cheaper grades of soap, in the manufacture of India rubber goods, it finds ready use.

A working formula for the preparation of purified anhydrous wool fat from either the commercial or crude product, or preferably direct from sheep's wool, by means of benzine from which all sulphur compounds have been completely removed and which may be volatilized without leaving the least trace of foreign odor, would be most desirable. After all is not the Pharmacopœial name only the synonym for a copyrighted preparation? One would be neither disappointed nor chagrined, in ordering purified wool fat, to be supplied with this patented product.

Is it not an oversight that that well-known and very efficient preparation Mel Sodii Boratis, or more properly the Mel Rosae et Sodii Boratis, the popular Rose Honey and Borax, has not been assigned a place in the Pharmacopœia? There are preparations of less merit and worth which receive recognition from one revision to another. Rose Honey and Borax is found in every pharmacy throughout the land, in some localities, especially in the large cities. It is frequently called for, and as often prescribed by practitioners as is Tincture of Arnica. Probably it is too domestic a remedy. In infantile diseases, in the treatment of simple cases of aphthae, stomatitis, etc., it is the remedy most relied on by the physician.

On page 216 is found Star Anise, the botanical name of which is given as *Illicium Verum*. The botanical name of the poisonous fruit, with which Star Anise is liable to be confounded, is given as *Illicium Anisatum*. Linne, *Illicium religiosum*, Siebold. The Pharmacopœia of 1880 gives the name *Illicium Anisatum* as being the botanical name of the true Star Anise, and *Illicium religiosum* as that of the poisonous variety. The present Pharmacopœia gives both *Illicium anisatum* and *Illicium religiosum* as of the poisonous variety. The specific name "Anisatum" is misleading. One would naturally infer that it is that of Star Anise.

Tobacco, page 402. Tabacum is still retained, no preparation of tobacco being official. A working formula for a Compound Tobacco Ointment would be most desirable. Many practitioners are wont to use a relaxing ointment in these insidious and alarming maladies, such as croup, croupy cough, pseudo-membranous croup, etc., and for want of a desirable official ointment, usually have recourse to a patented salve. An ointment which could be placed in the hands of the medical practitioner, equal if not superior to this patented ointment, would find great favor.

Quite a number of articles have been dismissed from the Pharmacopœia. Some have been retained which are obsolete and a few which are of no special medicinal value. Of those that possess no real medicinal properties, two may be mentioned, viz., fig and prune. The pulps of the fig and prune are used as ingredients in Confection of Senna, Confectio Sennae,

page 99. Let us see how valuable and how efficient these pulps are, or if the medicinal properties of the powdered senna leaves in this reliable preparation are augmented by them. The fig and the prune belong to a class of evacuates, which in medical parlance are known as mechanical cathartics. Their pulps, as ingredients in Confection of Senna, are not cathartics per se, the cathartic effect produced is due to the numerous little seeds or fruit which are distributed throughout the fig, in the prune to the indigestible skin. When either fig or prune is ingested, these indigestible particles pass out, through the alimentary canal, unchanged, but not without some action. They exert a stimulating influence on the muscular fibres of the intestines through the mucous membrane, accelerating the peristaltic action. The ingestion of unpeeled fruit, such as apples, peaches, pears, or of grapes, plums, currants, will produce more or less catharsis, the presence of much or little tannic acid will modify their action. The use of yellow mustard seed (not ground) in tablespoonful doses as a domestic remedy in dyspepsia, indigestion, habitual constipation, is well known. Now in Confection of Senna, prepared according to the directions given, these indigestible particles of the fig and prune, and which operate as mechanical cathartics, have been entirely or almost entirely removed, leaving only the pulpy mass of the fruit, hence it is very evident that the use of either fig or prune in Confection of Senna may be omitted without impairing or lessening its cathartic properties.

Among the obsolete not dismissed from the Pharmacopœia is Auri et Sodii Chloridum. It is of no special therapeutic value in the treatment of disease. Can it be that, in retaining it, the committee had in mind the "Bichloride of Gold cure?"

Muclilage Sassafras Medullae. It is seldom used and only as a collyrium, in which instance any other muclilaginous preparation will answer equally well.

ADULTERATION OF BEESWAX. L. F. Kebler, in a carefully prepared paper recently read before the Philadelphia College of Pharmacy (printed in Am. Jour. Pharm.), sums up his conclusions from analyses of various samples of beeswax and other waxes and allied products, by saying that beeswax, in our markets, is adulterated to the extent of 50 per cent, while in English markets it rises to 66.2 per cent. The melting point of beeswax, which varies from 62° to 64° C., is raised by carnauba wax, stearic acid, certain mineral waxes, and paraffines, while it is lowered by China wax, Japan wax, cacao butter, resin, tallow, spermaceti, vegetable waxes, and certain stearic acids and paraffines. It is apparently unaltered when adulterated with suint wax and certain mineral waxes, paraffines and stearic acids. (It is evident that quite an important point for the analyst to decide is just what "certain mineral waxes, paraffines and stearic acids" are employed by the sophisticated.—Ed.) The normal specific gravity (0.969 to 0.973) is greatly increased by resin, carnauba wax and certain mineral waxes, and lowered by paraffine. The writer considers the "acid number," "ether number," "iodine absorption figure" and other tests of service in valuation of the samples.

[Compiled for the Era.]

TABLE OF SPECIFIC GRAVITIES OCCURRING IN THE U. S. P., 1890.

By F. J. Wullgang.

Temperature, 15° C., 59° F., unless otherwise specified.

Acidum Aceticum.....	1.048
Acidum Aceticum Dilutum.....	1.008
Acidum Aceticum Glaciale.....	1.058
Acidum Hydrochloricum Dilutum.....	1.077
Acidum Hydrochloricum.....	1.163
Acidum Hydrochloricum Dilutum.....	1.050
Acidum Hypophosphorosum Dilutum.....	1.046
Acidum Lacticum, about.....	1.213
Acidum Nitricum, about.....	1.414
Acidum Nitricum Dilutum, about.....	1.057
Acidum Oleicum, about.....	0.900
Acidum Phosphoricum, not below.....	1.710
Acidum Phosphoricum, Dilutum, about.....	1.057
Acidum Sulphuricum, not below.....	1.835
Acidum Sulphuricum Aromaticum, about.....	0.929
Acidum Sulphuricum Dilutum, about.....	1.076
Acidum Sulphurosum, not less than.....	1.605
Adeps.....	0.932
Aether.....	0.725 to 0.728
Aether Aceticus.....	0.892 to 0.895
Alcohol, about.....	0.820
Alcohol Absolutum, not higher than.....	0.793
Alcohol Deodoratum, about.....	0.816
Alcohol Dilutum, at 15° C., about.....	0.936
Alcohol Dilutum, at 15.6° C., about.....	0.937
Alcohol Dilutum, at 25° C., about.....	0.930
Amyl Nitris.....	0.870 to 0.880
Aqua Ammoniae.....	0.960
Aqua Ammoniae Fortior.....	0.960
Aqua Hydrogenii Dioxidii, about.....	1.006 to 1.012
Balsamum Peruvianum.....	1.135 to 1.150
Benzinum.....	0.670 to 0.675
Bromum.....	2.960
Camphora.....	0.985
Carbonel Disulphidum.....	1.288 to 1.289
Cera Alba.....	0.965 to 0.975
Cera Flava.....	0.955 to 0.967
Cetaceum, about.....	0.945
Chloroformum, not below, at 15° C.....	1.490
Chloroformum, not below, at 25° C.....	1.173
Copalba.....	0.940 to 0.990
Creasotum, not below.....	1.070
Eucalyptol.....	0.930
Fel Bovis.....	1.018 to 1.028
Glycerinum, not less than.....	1.250
Hydrargyrum.....	13.551
Iodoformum.....	2.000
Iodum, at 17° C.....	4.948
Liquor Ferri Acetatis, about.....	1.160
Liquor Ferri Chloridi, about.....	1.387
Liquor Ferri Citratis, about.....	1.250
Liquor Ferri Nitrici, about.....	1.053
Liquor Ferri Subsulphatis, about.....	1.550
Liquor Ferri Tersulphatis, about.....	1.320
Liquor Hydrargyri Nitrici, about.....	2.190
Liquor Plumbi Subacetatis, about.....	1.156
Liquor Potassae, about.....	1.076
Liquor Sodae.....	1.059
Liquor Sodae Chloratae, about.....	1.052
Liquor Sodii Sillicatis.....	1.300 to 1.400
Liquor Zinci Chloridi, about.....	1.435
Mel.....	1.375
Methyl Saccharas.....	1.183 to 1.185
Oleum Adipis.....	0.910 to 0.920
Oleum Aetherum.....	0.910
Oleum Amygdalae Amarae.....	1.060 to 1.070
Oleum Amygdalae Expressae.....	0.915 to 0.920
*Oleum Anisi, about (47° C.).....	0.980 to 0.990
Oleum Aurantii Corticis, about.....	0.850
Oleum Aurantii Florum.....	0.875 to 0.890
Oleum Bergamottae.....	0.880 to 0.885
Oleum Cadinum, about.....	0.960
Oleum Capivi.....	0.922 to 0.928
Oleum Cari.....	0.910 to 0.920
Oleum Caryophylli.....	1.060 to 1.067
Oleum Chenopodii, about.....	0.950

Oleum Cinnamomi.....	1.055 to 1.065
Oleum Copaibae.....	0.880 to 0.910
Oleum Coriandri.....	0.870 to 0.885
Oleum Cubebae, about.....	0.920
*Oleum Eriogerontis, about.....	0.850
Oleum Eucalypti.....	0.915 to 0.925
Oleum Foeniculi, not less than.....	0.960
Oleum Gauthieriae.....	1.175 to 1.185
Oleum Gossypii Seminis.....	0.920 to 0.930
Oleum Hederae.....	0.930 to 0.940
Oleum Juniperi.....	0.850 to 0.890
Oleum Lavandulae Florum.....	0.885 to 0.897
Oleum Limonis.....	0.858 to 0.859
Oleum Lini.....	0.930 to 0.940
Oleum Menthae Piperitae.....	0.900 to 0.920
Oleum Menthae Viridis.....	0.930 to 0.940
Oleum Morrhucae.....	0.920 to 0.925
Oleum Myriciae.....	0.975 to 0.990
Oleum Myristicae.....	0.870 to 0.900
Oleum Olivae.....	0.915 to 0.918
Oleum Picis Liquidiae, about.....	0.970
Oleum Pimentae.....	1.045 to 1.055
Oleum Ricini.....	0.950 to 0.970
Oleum Rosae.....	0.885 to 0.890
Oleum Rosmarini.....	0.895 to 0.915
Oleum Sabiniae.....	0.910 to 0.940
Oleum Santali.....	0.970 to 0.978
Oleum Sassafras.....	1.070 to 1.090
Oleum Sesami.....	0.910 to 0.924
Oleum Sinapis Volatile.....	1.018 to 1.029
Oleum Terebinthinae.....	0.855 to 0.870
Oleum Terebinthinae Rectificatum.....	0.855 to 0.865
Oleum Theobromatis.....	0.970 to 0.980
Oleum Thymi.....	0.900 to 0.930
Oleum Tiglli.....	0.940 to 0.960
Petrolatum Liquidum.....	0.875 to 0.945
Petrolatum Mollè at 60° C. (140° F.).....	0.820 to 0.840
Petrolatum Spissum, at 60° C. (140° F.).....	0.820 to 0.850
Phosphorus, at 10° C. (50° F.).....	1.830
Resina.....	1.070 to 1.080
Spiritus Aetheris Nitrosi, about.....	0.836 to 0.842
Spiritus Ammoniae, about.....	0.810
Spiritus Ammoniae Aromaticus.....	0.905
Spiritus Frumenti.....	0.917 to 0.930
Spiritus Glonolii.....	0.826 to 0.832
Spiritus Vini Gallici.....	0.925 to 0.941
Syrupus, about.....	1.317
Syrupus Acidii Hydriodici, about.....	1.313
Terebinthum, about.....	0.862
Thymol (as solid).....	1.069
Tinctura Ferri Chloridi, about.....	0.960
Vinum Album, at 15.6° C., not less than.....	0.990
Vinum Album, not more than.....	1.010
Vinum Rubrum, at 15.6° C., not less than.....	0.989
Vinum Rubrum, not more than.....	1.010
Zincum, cast 6.900, rolled.....	7.200

ADULTERATION OF OLIVE OIL.

V. Olivier has examined 106 samples of genuine olive oil, finding the amount of potash required for saponification to vary from 19.05 per cent to 19.50 per cent and the iodine absorption from 79 per cent to 83.2 per cent. He tested a number of different oils by oleo-refractometer and is of the opinion that this instrument will be of use to detect considerable adulterations of olive oil. Oils giving normal figures cannot always be passed as genuine without further examination. He relies on the iodine absorption to detect adulterations. Commenting upon these conclusions, one of the staff of the Analyst believes that the maximum iodine absorption given is low, as numerous cases of oils having iodine absorption of 87 per cent to 88 per cent have been reported.

*Specific gravity increasing with age.

PHARMACY.

FOR BURNS a paste of bismuth subnitrate in water, applied with a soft brush, is a late recommendation.

AQUEOUS EXTRACT OF JALAP. Considerable doubt is expressed relative to the efficacy of such a preparation as this, which has recently been proposed by an eclectic physician.

NO MICROBES IN BREAD. Scientists have for a number of years been searching for microbes, especially toxic ones, in all things under the heavens. It is consoling to learn that bread, the staff of life, is not the harbinger of life destroyers.

POTASSIUM CHLORATE AND ALCOHOL. These articles should be mixed with care, says Schneider (Pharm. Cent.) if the chlorate be triturated with alcohol in a mortar, a number of detonations take place and, under certain circumstances, the explosion may become a violent one, this latter in case the chlorate mixed with alcohol be subjected to a sudden blow.

LEAD POISONING FROM EARTHEN JARS. A number of cases of lead poisoning have appeared in Great Britain, which have been traced to wines and beer made in glazed earthen vessels. G. A. E. Roberts points out, in Br. Med. Jour., that the use of lead in glazed dishes should be prohibited, or they should be marked in some way to show that it was unsafe to brew in them.

AN INGENUOUS VOCATION. Someone in London is offering best medical advice by supplying copies of the "prescriptions of famous West-End doctors," which he has dispensed for years. Similar methods have been followed by unworthy members of the pharmaceutical fraternity in the United States, but they have not openly advertised the fact. Prescribing druggists are a thorn in the flesh in England, it seems.

IRON MAY BE REMOVED FROM RUST OR STEEL, if it be fresh and superficial, by rubbing the article with velvet cork merely dipped in oil, but, if the rust be deep-seated a paste of tripoli, flowers of sulphur and olive oil should be spread on the part, allowed to remain a time, and then rubbed off with a camolis or soft buckskin. In obstinate cases, rubbing with emery is a last resort.

AN ELECTRIC FURNACE employed by Moissan in his experiments with very high temperatures is described as being made of whole slabs of magnesia, placed one on the other and prepared under special conditions. A tube made of charcoal fitted beneath the crown forms a separate enclosure in which the reactions take place free from foreign vapors and in an atmosphere of various gases. Moissan has obtained several pounds of chromium by the aid of this furnace.—(Chem. and Drug.

SESAME OIL IN OLIVE OIL.—In a test tube containing 14 to 28 gms. of the suspected oil is poured 14 gms. of a solution of 2 parts pyrogallol in 20 parts of hydrochloric acid, the tube is shaken vigorously and set aside to allow separation of the liquids. The oily layer is then removed and the acid solution is boiled for 5 minutes. The acid solution acquires a purple tint if sesame oil be present, but, if the oil be pure, the tint is only straw color. The test is sufficiently delicate to detect 1 per cent sesame oil.

RECTIFICATION OF ALCOHOL. The first distillate of alcoholic liquors is often very impure, and there are numerous methods for its rectification. The sodium chloride of recent introduction has been proposed as an efficient agent for the process. It has added in quantities of 100 to 500 gms. per hectolitre 24 hours before rectification. It is said that a product is thus produced of first rate taste and odor. The sodium chloride acts both as an oxidizer and an alkali, both which properties are employed in other methods.

AUTULTERATED LICORICE AND GINGER. Food and Sanitation makes the statement that there are very few genuine licorices on the market, while there are many that contain large percentages of spurious admixtures. It states that in a number of samples recently purchased analysis discloses in some of them as high as 70 per cent adulteration. It advises purchasers to buy neither licorice nor ginger without a guarantee of genuineness, and alludes to the fact that some firms quote ground ginger at a less price than whole ginger, evidence on its face of a fraudulent article.

TRUE MARINE GLUE is a combination of shellac and caoutchouc in proportions which vary according to the purpose for which the cement is to be used. Some is very hard, and some quite soft. The degree of softness is regulated by the proportion of benzole used for dissolving the caoutchouc. Marine glue is more easily purchased than made, but when a small quantity is needed the following recipe will give very good result: Dissolve 1 part of India rubber in 12 parts of benzole, and to the solution add 20 parts of powdered shellac, heating the mixture cautiously over the fire. Apply with a brush.

PERMANENT SYRUP OF IRON IODIDE. Augustus Bradley (N. C. P. A.) suggests the following working process: Place 266 grains of iron card teeth and 5 ounces of distilled water in a flask and add 2 avoirdupois ounces iodine. After cessation of chemical action, pour the solution of iron iodide on a filter, taking care that the orifice of the funnel is beneath the surface of a mixture of 101-2 av. oz. sugar and 31-2 av. oz. glucose contained in a porcelain vessel. Heat until the boiling point is reached. When cold add 3 fluid drams of 10 per cent hypophosphorous acid, and sufficient distilled water to make 1 pint. Store the product in 2-ounce bottles accessible to light.

DETECTING HEATED COTTON OIL IN LARD. Place about ten grams of the sample to be examined in a porcelain capsule of about half an ounce capacity. A small disk of white filter paper (which has been soaked in hydrochloric acid, thoroughly washed with distilled water, and dried) is just moistened with a 12 per cent solution of nitrate of silver, and placed in the concave part of a watch-glass, which, with the paper downward, is then inverted over the capsule containing the sample. The capsule is then put in a shallow oil bath, to which heat is gently applied, until 240° F. is reached. The source of heat is then immediately withdrawn. If even less than 1 per cent of heated cotton oil be present in the sample, a very marked coloration takes place on the disk, varying from a light brown to nearly black. If the sample under examination be pure and fresh, the disk is apparently unaffected.

CREOSOTE PILLS. Dieterich comments upon the fact that, while there is little difficulty in making creosote pills with the ordinary excipients, he believes that such pills are not best for administration, because they fall of disintegration in the body. He advises an emulsification of the creosote by thoroughly rubbing up 10 parts of it with 1 part calcined magnesia and 2 parts glycerine and to this mass is then added in the order given, 5 parts each of calcined magnesia and licorice extract, and about 16 parts licorice root and formed into a mass, which is then to be cut into 100 pills and dispensed as desired. These pills easily disintegrate and, upon squeezing, the creosote does not ooze out from them.

TAR PILLS. Make in the same manner as directed for creosote pills, substituting oil of tar in equal quantity for the creosote.

PLANTS WITH POISONOUS ODORS. There are few flowers whose perfume is actually deadly. It is said, however, (W. D.), that the flower of the Kalamujah, or death plant, found in the islands of Java and Sumatra, emits a perfume so powerful as to overcome, if inhaled for any length of time, a full-grown man, and killing all forms of insect life approaching it. This perfume resembles chloroform in its effect, producing insensibility. All insects and birds seem instinctively to avoid the plant. Linnæus mentions a case in which the odor of the rose bay proved fatal, and there is a plant known to the Persians as kerzeroh, the perfume of which they believe will kill a man if he inhales it after a hot south wind has passed over its blossoms. Many other plants, though not having deadly perfumes, nevertheless give forth odors which are decidedly hurtful. The *Poæria foetida* excites fever and headaches in those inhaling it. One of the magnolias emits an odor which produces in many persons nausea and sickness, and the poison sumach and poison dogwood are apt to lead to similarly unpleasant effects.

DETERMINATION OF ESSENTIAL OILS IN ALCOHOL. An elaborate paper by Bardy and Berard is offered in a recent issue of *Jour. de Pharm.*, from which *Pharm. Jour.* takes this description of a method of determining qualitatively the presence of essential oils in solution in alcohol. 25 cc. of distilled water are added to 1 cc. of alcohol, to which is then added 1 cc. of permanganate solution (1 gm. to the litre). If the color does not appreciably alter only traces of oil are present, but, if there is a decided change to maroon or yellow, then to 5 cc. of the spirit add 30 to 35 cc. of brine colored with a little aniline violet. An oily layer of a violet tint may now rise to the surface, and in that case, by operating upon a larger quantity of the alcohol in a similar manner, an appreciable quantity of oil will be separated and its amount may then be determined. The essential oil remaining in solution in the alcohol may be determined quantitatively by a further process, which must also be employed in specimens from which no oily layer separates. This method consists essentially in the separation of the oils by means of carbon bisulphide and their conversion by the action of sulphuric acid and sodium acetate into the acetates of higher alcohols, the amounts of which are then determined, and will indicate the percentage of essential oil dissolved in the alcohol

NEW REMEDIES.

ATHEURIN is a hair dye of Austrian recipe, which *West. Drug.* states is ammoniated pyrogallol solution in alcohol.

AQUOZONE is sold by the *New York Medical Journal* to be a 2½ per cent aqueous solution of ozone rendered permanent by the addition of hypophosphites.

MIGRANIN is a new remedy exploited by Meister, Lucius & Bruenig. Its exact constitution is not divulged, but it is presumed to be a double citrate of antipyrine and caffeine.

RESORBIN is an ointment base prepared by a patented process from a vegetable foundation, such as almond oil mixed with water and an emulsifying agent (*Chem. and Drug.*). Its advantages are said to be ready miscibility with aqueous solutions.

CAIRMALUM is a new staining agent for microscopical use, produced by heating together nearly to the boiling point, 20 cc. distilled water, 10 grams ammonium alum and one grain carmine acid, and decanting or filtering the liquid. A small crystal of thymol is added as a preservative.

DIODOFORM is an antiseptic offered by Adrien, of Paris. He produces it through the action of iodine upon acetylene periodide, and it appears in colorless, needle-shaped crystals. *Chem. and Drug.* describes it as free from odor and as having proved of good service in surgical practice.

LORETIN is a newly proposed substitute for iodoform. It has the properties of an acidulous substance, combining with metallic bases. In chemical constitution it is meta-iodo-ortho-quinoline sulphionate. In appearance it is very similar to iodoform, but is odorless. It is said to act well as a dusting powder employed mixed with magnesia.

CHLOROL is a new disinfectant, which *Jour. de Pharm.* states has the composition of one part each of mercuric chloride, sodium chloride and hydrochloric acid, three parts copper sulphate and 1,000 parts water. It is, therefore, merely a corrosive sublimate preparation, the reason for the presence of copper sulphate being that this salt may act as an emetic in case the solution be accidentally swallowed.

BISMUTH PHENOL is a preparation patented in Germany, the process of whose production is thus described by *Chem. and Drug.* A solution of 38 parts phenol in 400 of water is mixed with 16 parts of sodium hydrate and 49 parts of bismuth nitrate. The precipitate is boiled with water, washed, dried, and then is found as a grayish white powder showing about 80 per cent of bismuth oxide.

BORON-EISEN is described in *Chem. News* by H. N. Warren, who produces it by mixing solutions of borax and ferrous chloride, pressing the resulting white precipitate to free it from adhering water, and, after thoroughly drying, reducing it with an equivalent proportion of carbon in a lead crucible. In this way four to five per cent of boron is said to enter into union with the iron, a compound being produced with the fracture of metallic manganese, and possessing sufficient hardness to scratch glass. It is difficultly soluble in acids, and its melting point is nearly that of cast iron. It may be prepared also through the reduction of ferric carbonate or oxide mixed with boron oxide and charcoal.

RHODINOL is an oily liquid, specific gravity 0.8956, boiling point 125.5° C, which occurs as a constituent of the liquid portion of rose oil. In chemical constitution it is a primary alcohol, whose formula consists of 10 atoms of carbon and 13 of hydrogen. Hydrochloric acid converts it into dipentene dihydrochloride. Its various chemical reactions and decompositions have been studied by Barbier, who contributes his results in a paper given in *Compt. rend.*

ASPOLIN. Lambliack would not, at first sight, seem to be the source of any very potent medicinal agent, but Braconot derives from it this new preparation which he recommends for tuberculosis. It is a dark yellow, syrupy liquid, produced by boiling lambliack with water, adding hydrochloric acid and extracting with alcohol. Upon evaporation of the tincture and treating the residue with ether and distilling off the latter, the aspolin remains. In composition it is principally pyrocatechin and homopyrocatechin.

DISINFECTANT ACTION OF SAPROL. Saprol is an oily brown liquid with an odor of carbolic acid. Specific gravity 0.990. Contains 43 per cent of phenol, 53.9 of cresol, 2.3 of hydrocarbons, pyridin and other bases. Saprol constitutes an admirable disinfectant, devoid of the inconveniences presented by other disinfectants. Distributed in a uniform manner on all fecal matter it covers it with an impermeable film; the phenol and cresol which it contains penetrate little by little in the subjacent liquids. When the liquid possesses an alkaline reaction all the constituent parts exercise their disinfectant action. In the absence of an epidemic 1 per cent of saprol will suffice to disinfect all fecal matter.

THE MATTEI CANCER CURE has come near to involving Great Britain in a most serious imbroglio. It has placed the journals and the daily papers at loggerheads and has brought the great editor, Stead, of the *Review of Reviews*, into disrepute with certain sanitarians. In *Food and Sanitation*, an analysis of these wonderful cures is given to the world and we are told that the cures, so wonderful according to the cancer specialist, contain nothing but water, sugar, starch, sulphate of lime and a little albuminous matter. Analyses of 5 phials of Mattei's Electrics result in the statement that their composition is identical with that of pure water. The journal in which we find this information is making it very lively for Editor Stead and accuses him of all the sins of the decalogue, and particularly frowns upon Stead's plan by which the public is to contribute £100,000 to establish a new journal. All in all, the information given by *Food and Sanitation* is of a rather startling nature. It thinks Editor Stead is mixed up with a new drunk cure company. In this connection it is significant that the *Patent Medicines Journal* is coming out in fulsome articles relating to Mr. Stead and his proposed new venture, the *Daily Paper*. A good many people are calmly sitting on the fence, endeavoring to arrive at a determination to support one side or the other.

OINTMENT ZINC OXIDE. Augustus Bradley suggested at the recent meeting of the North Carolina Pharmaceutical Association, a modification of this preparation, which he finds free from granulation and rancidity: Eight ounces of white petrolatum are thoroughly rubbed up with 2 ounces of zinc oxide.

FORMULARY AND QUESTION BOX.

The object of this department is to furnish our subscribers with reliable and tried formulas and to discuss questions relating to practical pharmacy, prescription work, dispensing difficulties, etc.

Requests for information are not acknowledged by mail and ANONYMOUS COMMUNICATIONS RECEIVE NO ATTENTION. To insure answer in the next number, queries should be in our hands *ten days* prior to the date of issue.

QUERIES ANSWERED.

5896. Female Complaints.

(J. A. C.) We cannot answer queries of this character and would advise you to consult a reputable physician.

5897. Tasteless Cod Liver Oil.

(A. R.) See reply to query No. 5063, July 1, 1893, *Era*, page 15. Also supplemental information, query No. 5297, August 15, 1893, *Era*, page 153.

5898. Treatment for Pimples.

(J. H. B.) Various methods of treatment have been published in the *Era* from time to time. See *Era* of January 15th, 1892, page 246; March 15, 1892, page 171; April 1, 1892, page 204; April 15, 1892, page 234.

5899. Imperial Blue.

(K. Bros.) is the name of a shade of blue, of a reddish hue, and is applied to the color obtained from certain of the various manufacturers. It can be procured through almost any jobbing dealer in aniline dyes.

5900. Chloral and Potassium Bromide.

(G. C. J.) See reply to a similar query in the December 15, 1892, *Era*, page 366. Why do you not try the formula for compound mixture of chloral and potassium bromide of the National Formulary?

5901. Specific Medicines.

(J. O. F.) asks for information regarding "specific medicines," as "specific aconite," specific belladonna, etc. These remedies are listed by certain manufacturing houses and no doubt correspond with the so-called "specific tinctures," information concerning which may be found in a reply in this issue to the query of another correspondent.

5902. Tincture White Pine.

(R. R.) The following is taken from the *Era Formulary*: White pine turpentine (gum), 2 ounces; alcohol, 14 fluid ounces. Cut the turpentine into small pieces and dissolve in the alcohol by gentle heat of the water bath. This is used in making syrup of white pine and syrup white pine compound. See *Era*, April 15, 1893, page 350.

Reproduction of German Prescriptions.

(A. J. G.) The prescriptions you send are not originals but copies, and the reproduction of them, were we so inclined, would be an utter impossibility. They would be of interest, no doubt, to many American pharmacists as showing how and what a German physician may prescribe, but in other respects they do not differ very greatly from many other prescriptions received from German physicians by druggists who cater to a German trade.

5903. Specific Tinctures.

(A. J. G.) Generally represent one-half grain of the drug in each minim of

the tincture and compare very closely in strength and other particulars to those made by the pharmacopoeial process for tinctures from fresh herbs. The so-called "green tinctures" and "saturated tinctures" are made in a similar manner.

5904. Mixed Spices.

(Manlius.) Here is a formula from the *Era Formulary*.

Coriander	16 ounces.
Pimento	4 ounces.
Caraway	4 ounces.
Cinnamon	2 ounces.
Mace	2 ounces.
Cloves	2 ounces.
Nutmeg	2 ounces.
Turmeric	1 ounce.

Finely powder and mix thoroughly. Mixed spices as found upon the market vary greatly in their composition and the proportions of their ingredients as made by different manufacturers. The spices generally used are the white and black peppers, allspice, ginger, mustard seed, coriander, celery seed, cloves, mace, caraway, cinnamon, bay leaves, etc. Pepper, allspice and the ordinary spices are usually in larger proportion than the other ingredients.

5905. Permanent Emulsion Cod Liver Oil with Hypophosphites.

(F. O. F.) There are some formulas in the National Formulary as good as can be found anywhere. We speak this from experience founded upon a trial of nearly every process or formula that came under observation. A formula is given in the book named for an emulsion where each of the various emulsifying agents, acacia, glycofin, Irish moss, dextrine, quillaya, etc., are employed. These formulas may be modified or combined with hypophosphites or other salts as desired. You will also find in connection with the subject of emulsions a number of formulas for flavoring, given on page 40 of the same work. It is suggested you try the formula in which acacia is used as the emulsifying agent, and flavor with one of the formulas cited.

5906. Kidney and Liverwort Tea.

(M. F.)
Liverwort, herb, cut.... 8 ounces.
Dandelion root, cut..... 4 ounces.
Digitalis, cut..... ½ ounce.
Hydrangea root, cut..... 2 ounces.
Wintergreen, cut..... 1 ounce.
Peppermint, cut..... 1 ounce.
Powdered potassium nitrate

Mix thoroughly, and put in packages, holding about 2 ounces. Steep the contents of the package in a quart of water, with gentle heat, for two hours, then strain off 1½ pints and add to it half a pint of alcohol and 2 ounces of sugar. Dose of this preparation, a wineglassful four times a day.

5907. Butter Color.

(E. R.) The particular butter color you name was examined some years ago by Prof. A. R. Leeds, who reported that it yielded 4.80 per cent of coloring matter. "The reactions given by the color were those of annatto. The solvent gave the tests for cottonseed oil."

Annatto is the coloring material almost universally employed in the manufacture of butter color. Turmeric is sometimes added to modify the shade. These dye-drugs are extracted by boiling or by

maceration in cottonseed oil, lard oil, or other similar menstrua. Among the published formulas are the following:

Anatto seed 15 pounds.
Cottonseed oil 10 gallons.
Heat the oil to a temperature of 212 degrees F., add the anatto seed, and allow to macerate for 12 hours. Let settle, and pour off the clear, dark-colored oil.
(2.) Anatto seed 6 ounces.
Turmeric 6 ounces.
Good lard oil 1 gallon.

The coloring matter and the lard oil are boiled together for some time, and when cool the mixture is strained through a cloth.

For additional formulas see formulas Nos. 4879, 4880 and 4882, Era Formulary.

5908. Glycerole of Pepsin.

(F. O. F.) We know of no better formula than that given in the National Formulary, page 62, under the title "Glyceritum Pepsini." Here are also several others:

Pepsin in scales 64 grains.
Concentrated lactic acid 2 fl. drams.
Water 8 fl. ounces.
Glycerine 8 fl. ounces.

Rub the pepsin to a powder and then with the water and glycerine previously mixed, add the lactic acid and allow to stand a few days, with occasional agitation, then strain or filter.

The following is from an English authority:

Hydrochloric acid 1 dram.
Pepsine 256 grains.
Diluted alcohol,
Glycerine,
Concentrated orange
flower water, equal
parts of each to make
the whole measure 16 ounces.

5909. Sulphuric or Muriatic Acid in Vinegar.

(Manlius.) Sulphide of zinc has been recommended as a test for the presence of sulphuric or hydrochloric acid in vinegar. It is not decomposed either by dilute or strong acetic acid, but very easily by the mineral acids. If, therefore, pure vinegar is heated with a little zinc sulphide in a test tube, it will not give off the smell of sulphydric acid.

(3.) A test recommended by Hager is carried out as follows: One large or two small drops of gurgun balsam are mixed with 35 to 40 drops of pure acetic acid in a small test tube, heating and shaking to secure a uniform mixture. On the additions of two, or, at most, three drops of the suspected vinegar, the presence of hydrochloric acid is revealed by an immediate blue violet color, whilst in the presence of free sulphuric acid the reaction takes place somewhat slower. The test is a very simple one and can be made within a period of two or three minutes.

(3.) Bergman's test takes advantage of the fact that oxalate of calcium is insoluble in acetic and tartaric acids, but soluble in mineral acids. Take 5 cubic centimeters of the liquid to be examined and 5 drops test solution of oxalate of ammonium, and then 10 drops test solution of calcium sulphate. In the absence of free mineral acids, a precipitate of oxalate of calcium will occur (either at once or after awhile); if, however, mineral acids be present, the liquid will remain clear. It is claimed that so little as one-half of 1 per cent of free sulphuric, ni-

tric and muriatic acids can be detected by this test.

See also issues of the Era, January 1, 1893, page 9, and August 1st, 1893, page 111, for additional information upon the subject.

5910. Kidney Remedy.

(G. I. B.) The formula which you desire is not available. Following, however, are several formulas for this class of preparations which may be of service to you:

Liverwort 4 ounces.
Jamaica dogwood 1 ounce.
Ergot 2 ounces.
Couch grass 4 ounces.
Wintergreen 2 ounces.
Potassium nitrate 1 ounce.
Alcohol 2 pints.
Glycerine 12 fl. ounces
Water, enough to make 1 gallon.

Grind the drugs to No. 20 or 30 powder, percolate with all the glycerine and alcohol mixed with 2 quarts of water. When that has all passed, add enough hot water to make 1 gallon, and in which dissolve the potassium nitrate.

(2.)

Liverwort 16 ounces.
Dandelion root 8 ounces.
Digitalis leaves 1 ounce.
Hydrangea 4 ounces.
Wintergreen 2 ounces.
Potassium nitrate 3 ounces.
Sugar 12 ounces.
Alcohol 1 1/2 pints.
Menthol 5 grains.
Water, sufficient to
make 1 gallon.

Grind the herbs, etc., to a coarse powder, and having mixed the alcohol with 4 pints of water, moisten the powder with 2 pints of the mixture and macerate in a covered vessel for 24 hours. Then percolate until 7 1/2 pints of the mixture have passed in which dissolve the potassium nitrate and the sugar. The mixture may also be made from the fluid extracts of the drugs, the formula is as follows:

Fluid extract liverwort 16 fl. ounces.
Fluid extract dandelion 8 fl. ounces.
Fluid extract hydrangea 4 fl. ounces.
Fluid extract digitalis 1 fl. ounce.
Essence of wintergreen 1 fl. dram.
Potassium nitrate 3 ounces.
Sugar 12 ounces.
Alcohol 10 fl. ounces.
Menthol 5 grains.
Water 5 pints.

Mix the fluid extracts, alcohol, and water, add the essence of wintergreen and menthol, dissolve the sugar and potassium nitrate in the liquid, and filter.

5911. Dyspepsia Pills.

(G. C. J.) A careful search fails to reveal the formula you desire. Dyspepsia is a very general term and covers a great number of pathological conditions. Of course no one remedy can be devised which will meet the symptoms and be applicable to every case. Among the pills prescribed for these various conditions may be enumerated the so-called "dinner" pills, formulas for a number of which may be found in the National Formulary. Another pill whose formula is given in the same work is that found under the title "Antidyspeptic Pills." Pepsin in its various forms is often prescribed in cases of indigestion either singly or combined with bismuth, strychnine, etc., as in the following formula:

Pepsin 1 grain.
Bismuth subnitrate 5 grains.
Strychnine 1-60 grain.

For one pill.

Here are several other formulas compiled from various sources:

(1.) Fothergill's Antidyspeptic Pill:
Strychnine 1-20 grain.
Ipecac 1/2 grain.
Black pepper 1 1/2 grains.
Extract guthrie 1 grain.

For one pill.

(2.) Hallie's Indigestion Pills:

Extract aloes 20 grains.
Powdered ipecac 8 grains.
Powdered ginger 1/2 dram.

Divide into 16 pills.

(3.)

Extract quassala 2 drams.
Extract conium 10 grains.
Iron subcarbonate 10 grains.
Fowler's solution 10 drops.

For 10 pills.

5912. Pancreatin in Digestive Preparations.

(J. J. M.) Pancreatin is claimed to be an ingredient of many of the so-called digestive preparations on the market, though to what extent it is actually found in them, we are unable to say. Pancreatin as now understood, consists of four ferments, viz.: Pancreatic diastase, the amylolytic ferment, trypsin, the proteolytic ferment, a fat emulsifying, and a milk curdling ferment. Physiologically it is an active digestive of protoid and amyloid foods, converting protoids into peptones, and emulsifying fats. In the presence of an alkaline solution. In this respect it differs from pepsin, which requires an acid solution. Its therapeutic value in certain pathological conditions is a question for the physician rather than the pharmacist. We are aware, however, that it is often prescribed in cases of intestinal dyspepsia and it, or food predigested by its action, would seem to be indicated in cases of enfeebled digestion due to severe and prolonged illness and wasting disease. It is generally believed that the beneficial effects of pancreatin are best secured by causing it to act on the food before it enters the stomach, since the acid normally present in that organ tends to suspend its activity until it passes into the duodenum, the pancreatin itself being digested and lost. Upon this ground a point may be raised against the use of pancreatin in the formula you send, which, by the way, is almost identical with that given in the National Formulary, page 111, for compound powder of pepsin, in that it is combined in an acid solution. In the National Formulary a full working formula may be found for the preparation of pancreatin and tests for determining the proteolytic activity of the same.

5913. Tetraethylammonium Hydrate.

(F. L. N.) is a preparation that has lately been brought forward as a remedy for acute articular rheumatism. It is obtained (Roscoe and Schorlemmer) by gradually adding freshly precipitated silver oxide to a weak warm solution of tetra ethylammonium iodide, which is the starting point for all the tetra ethylammonium compounds. Tetra ethylammonium iodide is produced by the action of ethyl iodide on ammonia or on the ethylamines. If the filtrate, in the preparation of tetra ethylammonium hydrate

by precipitation with silver oxide from the iodide, be evaporated first on a water bath and then in a vacuum, long very deliquescent needles are frequently obtained. These disappear on further evaporation, the compound drying up to a semi-solid deliquescent mass which in its reactions closely resembles caustic potash, absorbing carbonic acid gas from the air, is strongly alkaline and saponifies fats. Concentrated, it burns the tongue. It is as bitter as quinine, has a caustic action upon the epidermis and a greasy unctuous feel when rubbed between the fingers. Tetra ethylammonium hydrate when heated alone decomposes into triethylamine, ethylene, and water. As a therapeutic agent it has been highly recommended by Dr. Peterson (N. Y. Med. Jour.) as a solvent for urea, uric acid, and the like. According to his statements a 10 per cent solution may be safely employed internally in doses of ten to twenty minims three times daily, and it may be used hypodermically in 1 per cent solutions. He believes it may also prove useful in the place of solutions of lithia salts when applied on positive galvanic electrodes about gouty joints or rheumatic concretions.

5914. Swedish Remedies.

(Bass.) "Slag Vatten" is a Swedish domestic remedy for fits. It is prepared by distilling equal parts of rosemary and lavender flowers with dilute alcohol. Sometimes gold leaf is put in the bottle when dispensed, in order that it may be more effective. Ordinarily, spirit of lavender is dispensed for this preparation. "Koleick Droppar" may be translated "colic drops," for which any one of a number of remedies may be dispensed. Hager gives the following:

(1.)

Oil chamomile	20.0 grams.
Oil peppermint	1.2 grams.
Oil caraway	0.3 grams.
Oil fennel	0.3 grams.
Oil cumin	0.3 grams.

(2.)

Oil chamomile	100 grams.
Oil rosemary	6 grams.
Oil thyme	6 grams.
Oil caraway	3 grams.

(3.) "Krampf Tropfen."

Valerian	4 troy ounces.
Galanga	2 drams.
Compound spirit ether	4 fl. drams.
Spirit cinnamon	2 drams.
Red saunder	20 grams.
Water and alcohol, of each, enough to make	2 pints.

(4.)

Spirit ether	10 grams.
Spirit nitrous ether.....	20 grams.
Tincture castor	20 grams.
Tincture opium	20 grams.
Tincture valerian	20 grams.

The other preparation you name is probably a Swedish domestic remedy, the exact composition of which we are unable to make out.

5915. Alterative Remedy.

(W. P. J.) We are unable to furnish you the formula at the present writing. Most of the blood purifiers and sarsaparillas on the market are also known as alteratives. One of the best compounds of this class of remedies is the compound elixir of corydalis of the National Formulary. Here are several other formulas:

(1.)
Tincture prickly ash bark 10 drams.
Fluid extract burdock... 2 ounces.
Fluid extract poke root... 2 ounces.
Fluid extract stillingia... 2 ounces.
Fluid extract sarsaparilla
enough to make 3 pints.
Dose, teaspoonful three times a day.

(2.)
Sarsaparilla root 1 pound.
Burdock root 1 pound.
Dandelion root ½ pound.
Mandrake root ¼ pound.
Rhubarb 2 ounces.
Red clover blossoms..... ½ pound.
Boiling water, about.... 3 gallons.
Steep over a slow fire for 12 hours.
Strain through a fine cloth and, while still hot, add granulated sugar, 5 pounds.
If it does not dissolve, add a little more heat. Then take

Potassium iodide..... 2½ ounces.
Alcohol, 95 per cent.... 1 quart.
Mix all together and add water to make 4 gallons. Dose, tablespoonful three times a day after meals.

(3.)
Fluid extract sarsaparilla 1 ounce.
Fluid extract stillingia... 1 ounce.
Fluid extract yellow dock 1 ounce.
Podophyllin

In the Era Formulary a great variety of formulas for alteratives and blood purifiers may be found.

5916. Liquid for Bronze Paint.

(X. Y. Z.) For a bronze paint, the bronze is suspended in a vehicle adapted to the special use to be made of the paint; where the object painted is likely to be exposed to dampness some thin varnish is required. A solution of sodium silicate has been recommended very highly for this purpose and would probably answer in most cases.

A preparation under the name of "Durable Liquid Bronze" is made according to a German patent as follows: Melt together 3 parts of gum dammar with 1 part of potassium or sodium bicarbonate, and continue heating on a water bath, stirring constantly, for three days. After cooling reduce the mass to powder, then dry, in thin layers, at a temperature of 50° C. This powder is then dissolved in petroleum benzine previously neutralized by passing through it ammonia gas. It is said that bronze powders suspended in this varnish will retain their luster for a long time.

Pour over 100 parts of dammar and a few pieces of glass in a bottle 900 parts of benzine. Pour off the solution from the fine sediment and glass, and suspend in it 300 to 400 parts of bronze powder. This is said to stand the action of water and may be washed.

5917. Depilatory Powders.

(C. M. H.) Most of the preparations on the market for the removal of superfluous hair are similar in composition to those made from the following formulas taken from the Era Formulary:

(1.)
Powdered quicklime 10 grams.
Barium sulphide..... 10 grams.
Starch 10 grams.
The powders are mixed and moistened with a little water, and then applied. It acts in a few minutes and is then removed

by scraping with a paper knife or similar blunt instrument.

(2.) Mix lime and water to a thick cream, and pass through the mixture 25 or 30 times its volume of sulphuretted hydrogen gas. When the gas escapes, stop the process. The pulpy mass is spread on paper, and applied for 10 or 15 minutes, and then washed off with sponge and water.

(3.) Chinese Depilatory:
Quicklime 16 ounces.
Pearlash 2 ounces.
Liver of sulphur 2 ounces.
Reduce it to a fine powder and keep it in a well-closed bottle.

Unless these remedies be employed under the supervision of a competent physician their use should be discouraged. At best great caution should be exercised in their employment as there is no preparation or application for the purpose that is absolutely safe and not attended with some degree of danger.

5918. Shaving Soap.

(D. J. N.) The requirements which determine the fitness of a soap for shaving purposes may be summed up as follows: The soap must yield a strong, thick lather, which should remain as long as possible without drying; it must be mild in use, and must keep a long time without turning rancid. To make a soap of the characteristics mentioned, great care and the best of materials are required. The stock most suitable is clean, hard, fresh tallow of the best quality and about 10 to 20 per cent of cocoa nut oil. The lye used is partly potash (say three parts soda lye and one part potash lye). Too large a proportion of cocoa nut oil causes the froth to dry up rapidly and fails to render the hair soft enough for shaving; the potash lye causes the soap to yield a better lather than a pure soda soap, as it produces the froth more rapidly, while a soap made entirely with soda lye yields a poor lather, which is silmy rather than frothy. For the further improvement of the soap, an addition of gum tragacanth is often made, which serves to bind the soap together and also makes it very mild in use, and improves the lathering qualities. Bassorin, a constituent part of some gums, has been used in the same way. The gum tragacanth is incorporated with some of the hot fat, when the soap is made by the cold process. From 1 to 2 pounds of the powdered gum to a frame (about 1,000 pounds) will make a noticeable improvement. Here are several formulas for cold made shaving soaps, taken from "American Soaps" and with which gum tragacanth may be incorporated:

(1.)

Tallow	400 pounds.
Cocoanut oil	50 pounds.
Soda lye, 38° B.....	200 pounds.
Potash lye, 38° B.....	25 pounds.

(2.)

Tallow	350 pounds.
Lard	50 pounds.
Cocoanut oil	100 pounds.
Soda lye, 37° B.....	220 pounds.
Potash lye, 32° B.....	60 pounds.

(3.)

Tallow	300 pounds.
Cocoanut oil	40 pounds.
Soda lye, 37° B.....	150 pounds.
Potash lye, 33° B.....	24 pounds.

The stock is melted and strained and allowed to cool to 100° F., when the lye (previously mixed) is added. The soap

is lightly perfumed with a composition somewhat as follows:

(1.)	Oil lavender	15 parts.
	Oil geranium	3 parts.
	Oil caraway	10 parts.

(2.)	Oil lavender	15 parts.
	Oil thyme	10 parts.
	Oil caraway	8 parts.
	Oil bergamot	2 parts.

(3.)	Oil lavender	8 parts.
	Oil sassafras	6 parts.
	Oil citronella	4 parts.

If gum tragacanth is to be added, it is previously mixed in some hot fat, taking care to get out all the lumps, and added to the stock in cretching. Of course, enough lye for the additional fat so used must be added.

5049. Preserving Orange Juice.

(W. E. P.) Ripe and carefully selected oranges are taken, the skins and seeds removed and the pulp crushed and pressed out. The juice as it comes from the fruit must be clarified, which may be accomplished by several methods, viz., heat, fermentation, etc. The juice when clarified by heat, is heated to about 80° or 90° C., when a solution of white of egg is added. It is then skimmed and filtered. Clarification by fermentation is based upon the transformation of sugar into alcohol, which tends to insure the preservation of the juice. By this method the juice is placed where the temperature varies from 20° to 25° C., until it is transformed into wine, forty-eight hours being usually sufficient. When the fermentation is finished, the liquid is filtered.

After clarifying the juice, it may then be preserved by one of several methods. Here is a process from the Era Formulary:

The clarified juice is heated to boiling in a copper vessel and then poured into a dish. Meanwhile the bottles are provided with stoppers, and are then gradually filled, a space of about two centimeters in the neck being left empty; some alcohol is then poured upon the hot liquid, and the bottle is quickly stoppered, the cork being further secured as the liquid cools. The alcohol which evaporates into the empty space is sufficient for the preservation of the liquid. The juice of fresh herbs may be preserved in the same manner.

Another process similar to the one just given is called the "Appert Method." It is the most convenient method and with some kinds of juice works very well. The clarified juices are bottled in stone or glass bottles and corked and wired, they are then carried in a rack to a hot water kettle of sufficient size to allow the liquid to cover the bottles. The water is heated to the boiling point, and after a few seconds the source of heat is removed and the water is allowed to cool down, when the bottles are removed.

Antiseptics of various kinds such as sulphurous, boric, benzoic, formic and salicylic acids have also been recommended and are no doubt used to a very large extent for the preservation of the different fruit juices. Boroglyceride, sulphite of sodium and peroxide of hydrogen are also used. It has been maintained, and justly so, that antiseptics like the above should not be employed in articles of diet or drink for hygienic reasons, and there has always been more or less discussion

as to how injurious they might become when taken into the system in small amounts continuously. Upon these grounds the French government has prohibited and adopted severe penalties to their uses. For further remarks upon the subject see Era of September 15, 1893, page 256, and Era of October 15, 1893, page 315.

5020. Recognition of American Registered Druggists in Germany.

(P. W. G.) asks if a druggist registered in several states in this country can practice or work at the drug business in Germany. Not by reason of such registration. In Germany the laws governing the practice of pharmacy are much more stringent and thorough than in this country. Here are a few of the things the German pharmacist must undergo before he has the right to make application to the government for a license to practice upon his own account. In beginning the business the would-be apprentice has to give evidence of having attained a certain standard of school education and the term of apprenticeship is not less than two years if the youth have matriculated at a university, or three years for such as have qualified themselves for the one year's military service. Pharmacists rarely take more than one apprentice at a time and they really undertake his scientific and technical training. During the apprenticeship he has to acquaint himself practically with his calling and theoretically with the various associated sciences. At the expiration of the three years the novice enters for the first technical examination.

The examinations are conducted by special committees at the universities and include laboratory work, analytical chemistry, physics and a knowledge of the laws specially affecting pharmacists. The first examination is not only viva voce but practical and written.

This certificate entitles the holder to rank as an assistant, at which he has to serve another three years, after which he studies eighteen months at a university. The subjects here studied, many of them comparatively exhaustively, are chemistry, organic and inorganic, analytical and forensic, physics, botany and materia medica.

The final examination extends over six weeks or two months. It is written, practical, and oral, and embraces all the different branches of science mentioned above. The successful candidate is entitled to manage or own a pharmacy if he can obtain a license from the government to do so, in a locality where the increase of population is sufficient to warrant an addition to the existing number of pharmacies or "Apotheken." The applications for such licenses, however, are so numerous that unless one has powerful influence the chances are heavily against success, and the pharmacist has to be content to continue as an assistant or enters some other profession or calling.

5021. Snow Globe Colors.

(J. B. S.) Here are some formulas taken from the Era Formulary:

Canary—
Make a solution of picric acid in alcohol and add to water to form the desired shades.

Yellow—
Sesquichloride of Iron..... ½ pound.
Hydrochloric acid 1 quart.
Dissolve and dilute with water.

Amber—
Dragon's blood, in coarse powder 1 part.
Sulphuric acid 4 parts.
When thoroughly dissolved, dilute with cold distilled water till the required tint is obtained.

Blue—
Distilled water 90 parts.
Blue vitriol 30 parts.
Alum 30 parts.
Sulphuric acid 20 parts.

Dark blue—
Distilled water 500 parts.
Ammonia water 40 parts.
Sulphate copper 10 parts.
Any desired shade can be obtained by varying the proportion of ammonia and copper salt.

Dark blue—
Sulphate copper 160 grains.
Solution potash 1 pint.
Glycerine ¼ pint.
Water 16 pints.

Dissolve sulphate of copper in sufficient water, add to the solution potash, then glycerine, until complete solution results. Finally add the remainder of the water.

Green—
Dissolve several large copper pennies and a nickel in nitric acid. This solution, when diluted with water, furnishes a beautiful permanent green color, which can be adjusted to any desired shade by varying the proportion of diluent.

Pink—
Cobalt oxide 1 gram.
Nitric acid 49 grams.
Water to make 1,000 grams.
Dissolve the cobalt in the acid, then add the water.

Bright red—
Distilled water 970 parts.
Sulphuric acid 10 parts.
Cochineal 8 parts.
Alum 8 parts.
Pure cream tartar 4 parts.

Carmine—
Carmine 3 to 5 grains.
Chloride of tin 3 to 5 grains.
Water of ammonia 1 dram.
Water enough to make 8 pints.
Dissolve the carmine in the water of ammonia; add the chloride of tin and water.

Purple—
Sugar lead 3 ounces.
Powdered cochineal 1 dram.
Water, quantity sufficient.

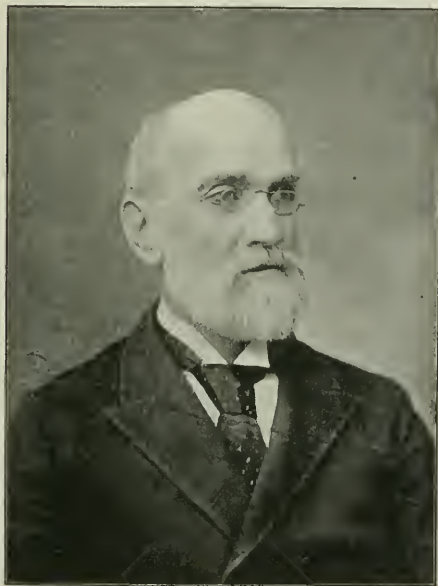
Violet—
Mix together solutions of nitrate of cobalt and sesquicarbonate of ammonia, adding a sufficiency of ammonio-sulphate of copper to strike the required color.

See also Era, February 15, 1893, page 158, for a formula for the so-called "multi colors" for show globes.

Formulas Wanted.

(C. M. H.) Hukka Cream.
(G. B. B. & H.) Kilmer's Swamp Root.

CHEAP METHOD OF FINISHING FLOORS. Mix burnt sienna with petroleum, and apply freely. This method is objectionable from the point of view of fireproof qualities, but has the advantage of being very cheap, while the appearance is not at all objectionable. Another very cheap method is to add a very little Brunswick black to boiled linseed oil. This gives a rich brown color that will dry hard, and if it be at, say, the end of every year removed, the floor will always look in good order.



THOMAS S. WIEGAND.

A READY willingness always displayed in helping both the individual interests of the members of the profession of pharmacy and the profession itself as a whole has placed the name of Thomas S. Wiegand among those whom the pharmacists of the country delight to honor. Mr. Wiegand has been known for the last thirty years by the large number of those who are proud to write "P. C. P." as an addition to their usual pharmaceutical degrees, as Actuary and Librarian of the Philadelphia College of Pharmacy, and to the world at large he has been no less well known by his scholarly contributions to the literature of the profession. Mr. Wiegand was born in 1825, and after receiving a fair preliminary education he entered, at the age of 14, the drug store of Haskell & Merrick, of Philadelphia. In 1844 he became a graduate of the Philadelphia College of Pharmacy, and in the following year he was appointed apothecary of the United States Naval Hospital, Brooklyn, N. Y. He remained in the service of the government nearly three years, and at the expiration of this time he returned to Philadelphia. After two years' service in the store of Frederick Brown he started in business on his own account, which he continued for a number of years until impaired health demanded a change from the onerous duties of the retail pharmacy. This experience, in a measure, explains the hearty sympathy which has always characterized his efforts in aiding, in a practical way, those who serve the public in the capacity of retail pharmacists. Mr. Wiegand then took charge of the pill department of Bullock & Crenshaw, Philadelphia, with whom he remained sixteen years, when he was elected to the position he now so ably fills. It is in this position that he has, by a rare combination of personal

qualities, endeared himself to a wide circle

of friends who have yearly passed from the doors of the college to engage in their chosen vocation. It has been remarked that Mr. Wiegand makes several hundred firm friends each year, and the appellation "Uncle Tommy" is one which is applied to him by every student with whom he comes in contact as one of affectionate regard, showing an appreciation of an assumed relationship which is marked by kindly advice and lasting friendship. Mr. Wiegand's contributions to the literature of pharmacy have, with a few exceptions, appeared in the American Journal of Pharmacy, and his reputation as a careful and painstaking writer finds a firm foundation in the later editions of Farrish's Pharmacy, which he revised and, to a great extent, rewrote. The proceedings of the American Pharmaceutical Association also show numerous articles bearing his name.

NEWS COMMENT.

Users' drug store at Galeton, N. Y. was burned recently. The loss is estimated at \$1,000, with \$2,500 insurance. The fire was supposed to be the work of an incendiary.

West & Truax, wholesale druggists of Toledo, were heavy sufferers in the disastrous fire which occurred in Toledo January 4. The losses figure about \$75,000, with about \$15,000 insurance. The firm permanently retires from business and will be succeeded by the Toledo Drug Co., a concern incorporated at Lansing, Mich., the principal stockholder, E. D. Peck, being a former member of the West & Truax Co.

Gustave A. Liebig, Ph. D., prominently identified with the chemical industries of Baltimore, died at his home in Baltimore County, Md., December 17. He studied pharmacy with Baron Berndt, in Prague, and later entered the Carolinum, the oldest university of Germany, graduating in 1849 as doctor of philosophy. He came to the United States in 1856, landing in New York, where he remained two years. He then removed to Baltimore.

An explosion which resulted in the loss of two lives occurred in Procter & Gamble's glycerine works, Cincinnati, December 28. It was caused by the bursting of a tank in the digester-house, which is used to separate the glycerine from the grease. It was thirty feet high and four feet wide. So great was the force exerted that part of the tank was sent through the roof of the building, three stories high. The loss is estimated at \$1,500.

Following the lead of the Michigan Board of Health, the members of other state boards of health have been investigating the system of disposing of excreta by the dry closet method. The committee appointed by the Iowa State Board of Health to investigate the subject reported that, in twenty-six replies to letters addressed to seventeen different cities, six were in favor of the system, fifteen considered it unsatisfactory, and five expressed no positive opinion. From its own investigations the committee condemns the system for the following reasons: The drying of the excreta and ventilation of the closets depend wholly upon the ventilation of the building—the uninterrupted and continuous flow of air in one direction. This, under all circumstances, was impossible, as adverse winds or even opening of a door may cause a reversal of the air current, there being no means of preventing back drafts. Neither does the so-called dry closet always remain dry, an objectionable feature. Another point against it is the excreta is never subjected to any sufficient degree of heat to destroy possible disease germs when desiccation of the material in the vault occurs. In this way the desiccated material, when drawn up through the ventilation shaft, may become a source of contagion to the surrounding community and even to the occupants of the building by contaminating the air as it is drawn into the fresh air ducts, should it be infected by the microbes of typhoid fever, diphtheria or other contagious diseases. The dry closet system, as it is now constructed, is not the best means of caring for excreta of school buildings when proper sewerage or other approved methods are obtainable.

The London correspondent of the Medical Record, in his report of the recent meeting of the General Medical Council, says: "Perhaps the most interesting subject of discussion on your side of the Atlantic will be the approach toward an International Pharmacopoeia. The medical authorities of India and the colonies have been in communication with the council as to their wants, and, as a new edition of the British Pharmacopoeia will be wanted in about a couple of years, it will not improbably be adopted for the empire as far as the committee can manage. I wonder if America will some day join in this work so as to have a codex for the English-speaking world." For the benefit of the correspondent and the General Medical Council, we would state that the American Pharmaceutical Association, since its last annual meeting in Chicago in August, 1893, has been carrying a chip on its shoulder in the shape of \$1,000 which it appropriated for the purpose of aiding in the work of bringing out an International Pharmacopoeia. Talk about America joining! America has already joined and is busily engaged hunting for converts.

The trial of Jennie Carr, a colored woman of Marion County, Ind., accused of killing her 3-months-old child by giving it morphine in milk, has been watched with great interest by medical and chemical experts. The accused was first convicted upon the evidence of a physician formerly associated with the coroner who conducted the inquest. In his statements to the jury he testified that he had found morphine in the stomach, blood, spleen and other organs of the child in enormous quantities. Conviction followed and the woman was sentenced to life imprisonment. Upon an appeal, the Supreme Court of Indiana set aside the verdict of the lower court and ordered a new trial in another county. At the second trial experts were introduced by the defense, whose testimony put to rout the claims of the doctor upon whose evidence the woman was convicted. The experts for the defense also testified that the report of the doctor's examination was in large part copied from Elyth's Toxicology and Atfield's Chemistry. It was alleged that the milk which the child drank contained only about three-eighths of a grain of morphine, and from which the expert for the prosecution claimed that he had made over one hundred tests for poison. Experts on the other side claimed that it would have hardly been possible to make ten color tests for morphine with such a small quantity, to say nothing of making one hundred tests. The defense also demonstrated to the satisfaction of the jury, that such color tests as were made to prove the presence of morphine might also be made for ptomaines. Among the experts employed by the defense was Dr. V. C. Vaughan, of Michigan University, who testified that, upon careful examination of the evidence and report made by the expert employed by the prosecution, he was of the opinion that no chemist could make all of the tests in a case of morphine poisoning and obtain morphine in sufficient quantity and purity to produce results with such distinctness as was claimed in the report. The second trial lasted about a week and the jury very quickly returned a verdict of not guilty.

NEW YORK.

New York, January 11.—The improvement in business previously reported continues, and in gripe seems to be on the increase. The drug trade has not escaped this malady, as quite a number in wholesale drug circles are victims of it. The retailer is too busy to think of taking it, and if the general drug business was as good as the prescription business extra help would be needed to take care of it, but the buying is for actual necessities only, showing that the people are carefully guarding their surplus cash. Business in the smaller stores is better than in the larger ones. The popular remedies sought as cures for la gripe by those who do their own doctoring are quinine, phenacetine, porous plasters and whiskey. The pharmacist who was thoughtful enough to put up a grip remedy is now reaping the benefit of his forethought. In a small eastside pharmacy upwards of four dozen bottles were sold in a week.

T. E. Fraser, Fifty-fourth street and Second avenue, has been a victim of an employer's dishonesty. Cases of this kind have been very numerous of late, but no prosecution has taken place the proprietors preferring to let it go rather than to be troubled with going to court; but Mr. Fraser preferred to make an example of his case and push it to conviction. The culprit in question was the colored porter of the store. The credit of detecting the thief is due to Mrs. Fraser, who at the time was acting as cashier, the regular cashier being ill. She noticed, as he was about to leave the store, that his pockets were slightly bulged out, and becoming suspicious that all was not right, called him back and gave him some work to do which necessitated the removal of his coat, and while he was engaged at this they examined his coat and found about \$30 worth of goods secreted in the different pockets. A policeman was called and the porter was locked up. The case came before general sessions, and a sentence of four months and a fine was imposed. This is the fifth similar experience Mr. Fraser has had, but this is the first time he has prosecuted, and he thinks if his brother pharmacists would do likewise there would be less of it going on.

Considerable excitement has been caused in Brooklyn by the controversy between the Board of Education and the homeopathic physicians over the non-acceptance at the schools of certificates of vaccination of pupils treated by a new homeopathic method, which is the administration, internally, of a preparation called variolin as a substitute for vaccination. This remedy is said to be the highly attenuated matter taken from a pustule of small-pox, which, it is claimed by the allopaths, is taken in so minute a quantity that the medicine would be ineffective, because it would be digested and thrown from the body through the natural channels. The claims of the drug will be fully investigated. In the meantime the Board of Education will refuse these certificates until the Health Board reports.

Mount Vernon is in revolt over the high license imposed on druggists for the sale of alcohol, and only one store has taken out a license to sell it. This throws the trade to the grocer, who takes out the license for the sale of liquor. Considerable annoyance is caused to the people, who have always been in the habit of buying it from the drug store, but the

amount of the license imposed would entail considerable loss upon the pharmacist, as there is never any real profit in selling the article. The one licensed pharmacist is doing a thriving business in the article.

The report of the Health Board shows this city to have been particularly healthy during the past season, and the deaths from contagious diseases are fewer than for some years past. The deaths given are: Diphtheria, 1,944; typhus fever, 190; typhoid fever, 577; scarlet fever, 552; measles, 885, and small-pox, 98. The death rate was the lowest since 1877. It was 23.46 as against 24.26 last year.

Francois Funtz has succeeded A. Grau at 311 Western avenue.

H. Hamerschlag, 119 N. Second, has sold out to W. H. Schatz.

J. Hautelmann has opened a new store at 786 Eastern Parkway, Brooklyn.

Col. Samuel Tilden, president of the Tilden Co., New Lebanon, N. Y., was in town recently.

A. Klipstein & Co. is the name of a new concern incorporated January 2. It will manufacture dyestuffs.

H. Friedland, East Broadway and Jefferson street, has opened a branch store at Jefferson and Henry streets.

Charles Davis, of Davis Bros., Carroll and Smith streets, Brooklyn, is spending the winter at his home, Picout, Ont.

The National Folding Paper Box Co. recently took judgment against the New York Food and Condiment Co. for \$524.

W. H. Bird has purchased Mervin's Pharmacy, 592 Third avenue, Brooklyn, having done relief work there for some time.

Carlisle's Pharmacy, Mt. Vernon, N. Y., has been moved across the street from the former location to more commodious quarters.

E. C. Duheine, for a number of years with H. J. Anable, has purchased Notcutt's Pharmacy, 531 Flushing avenue, Brooklyn.

Charles Woldneck has bought the store of Dr. Meyer, Lexington avenue and Fifty-fourth street, and is having it entirely renovated.

The well known firm of Geo. Lueders, Importer and dealer in essential oils and materials for perfumes, has been changed to Geo. Lueders & Co.

S. Schwarz, Broad street, near Greene, Newark, N. J., has opened a beautiful new store. One of the principal features is a handsome soda fountain.

S. Lipris, Essex and Canal streets, whose store was damaged by fire recently, will entirely renovate and restock it and continue at the same location.

C. P. Kinsella, 167 Main street, Paterson, N. J., has purchased the Odd Fellows Hall, the building in which his store is located. The purchase price is said to be \$45,000.

The Le Page Chemical Company has been incorporated at Albany with a capital stock of \$12,000. It will manufacture Venice turpentine and other chemical products in this city.

C. E. Reinhardt, recently representing Theodore Ricksecker & Co., in Brooklyn, has returned to his former position with F. Huhn, and is representing this firm in Brooklyn and vicinity.

The Union Chemical Works, 15 Cedar street, has made an assignment. Morris Sterne has been appointed receiver. The company has been insolvent for some

time, and is being wound up by the directors.

Joseph Gibian, for a number of years manager of Hermann's Pharmacy, Mulberry street, Newark, N. J., has opened an elegant store at the corner of High and Sussex streets, which he has named the Columbia Pharmacy.

S. L. Meir, for some time at Losee's Pharmacy, Broadway and Madison street, Brooklyn, has opened a new store at 417 Manhattan avenue, Greenpoint.

The store of A. J. Lynch, Fulton and Tompkins avenue, Brooklyn, has been sold to Mykrantz Bros., of Champagne Mist fame; this store was formerly owned by E. L. Blanding & Co.

J. Taylor Clarke, Thirty-third street and Avenue D, Bayonne, N. J., has purchased the store of A. H. Styles, corner Forty-third and Avenue D, Bayonne, and will run it as a branch of his old store.

The well known wholesale drug house of Bruen Bros. & Ritchie has been dissolved, owing to the death of Oscar Bruen. The business will be continued by the surviving partners under the firm name of Bruen, Ritchie & Co.

The dinner recently given to Mayor-elect Scheren, Brooklyn, was a very select affair, only 96 invitations being issued. The drug trade was represented by Wm. M. Davis, president of the Board of Pharmacy.

Geo. E. Wray, Yonkers, N. Y., has put in one of Tufts' latest and most elegant fountains, made of Mexican onyx, and while there are larger fountains than this, there are none handsomer. He has also had his store entirely redecorated in white and gold.

J. W. Edwards, Fifth avenue and Third street, has joined the ranks of benedicts, and has just returned from Chicago, where the wedding took place at the home of the bride's parents. On the return trip points of interest between Chicago and New York were visited.

L. Englehorn, who formerly managed the New York branch of C. F. Boehringer & Soehne, has returned to Germany, and the American branch house will be in charge of Dr. L. Schaefer, a director in the company, formerly located at the company's works at Waldhof, near Mannheim, Germany.

E. H. Hammer, vice-president of the Keasbey & Mattison Co., of Ambler, Pa., will hereafter be located at the factory and assist Dr. Mattison in the general management of the business. He will visit the New York office once a week. A. N. Cox will continue to look after the city trade as usual.

George McDermott, a member of the firm of Edward Hill's Sons & Co., the well known chemical house, died at his residence in this city December 24. He had entered the firm's employ when a boy, and by the faithful performance of his duties worked himself up until he became a member of the firm.

George Kempton, recently with Hudnut's pharmacy, Broadway and Ann streets, is again representing Theodore Ricksecker in New York City and vicinity. Although Mr. Kempton's position was a pleasant one, he found that inside work did not agree with him. He is well known as a salesman of ability and a pharmacist of experience.

Messrs. Griffin and Davie, clerk and librarian of the New York College of Pharmacy, on Christmas were presented with handsome silk umbrellas by the

students of the college. Mr. Griffin, having been sick with la grippe, the speaking was left to Mr. Davie, who thanked them in behalf of his associate and himself, wishing them success in the examinations to come.

The New York and New Jersey Telephone Company have issued an order compelling all druggists who rent telephones to institute pay stations and forbidding any further free use of the instruments for personal calls. Hereafter any one, except the subscriber and his employees, who uses the telephone must pay 10 cents for Brooklyn calls and 20 cents for New York calls.

Mr. Benjamin Altmeier, graduate N. Y. C. P., will soon open a new store on Smith street, between Fulton and Livingston streets, in the building of the new Bijou Theater, Brooklyn. It will be known as the Bijou Pharmacy. Mr. Altmeier is an experienced pharmacist and has been employed in some of the best stores in New York and Brooklyn. His last place was with Hardenberg & Angus, Columbus avenue and 75th street. He was formerly with Adrian Paradis, Brooklyn.

Robert R. Martin, until recently manager of the New York office of Sharp & Dohme, Baltimore, returned from a visit to the chief chemical centers of Europe to again go abroad, this time to London, where he assumes the position of manager with Oppenheimer, Son & Co., Limited, originators of palatinoid and bipalatinoid machinery, and who have a very large business throughout the world. He will also in a general way represent Sharp & Dohme in the foreign countries tributary to London.

Some months ago a prize microscope was offered by Seabury & Johnson to the member of any pharmaceutical association writing the best paper on "Substitution." A committee of award was appointed as follows: S. W. Fairchild, H. W. Atwood, T. J. Macmahon, of the New York College of Pharmacy, and on December 20 they decided that the paper of Addison Dimmitt, chairman of the executive committee of the Kentucky Pharmaceutical Association, was entitled to the prize, and it was so awarded.

The case of William Glockner, the Eighth avenue druggist, who was sued for damages by the brother of the deceased Munde, to whom was administered morphine in place of quinine by a youth employed in the store, came up for trial recently, and the case was dismissed by the jury. It was shown that at the time the mistake was made Glockner was in a lunatic asylum, and was not responsible, as the clerk was hired by the head clerk having charge of the store, the business being run in the name of Mrs. Glockner.

The series of lectures to be given at the New York College of Pharmacy under the auspices of the Alumni Association should receive the hearty support of the profession. All are cordially invited, and the subjects chosen by the different professors and speakers who will deliver the lectures show that they will be particularly interesting to pharmacists, as well as instructive, and should go a long way toward increasing the membership of the Alumni Association. The first lecture will be by Prof. Coblenz on the relationship between the chemical constitution and the medicinal action of the newer remedies. This will be followed by Dr. Rusby, Prof. Elliott and others.

BOSTON.

Hoston, January 11.—Dr. Timothy C. Bardeen died on the night of December 22 at his home in South Boston, after an illness of three weeks' duration. Inflammation of the bowels was the immediate cause of death. Dr. Timothy C. Bardeen was born in that section of Dorchester now known as Hyde Park, February 25, 1859, and spent his early life there, receiving a rudimentary education in the common and high schools. Shortly after being graduated from the high school he entered the employ of David Evans & Co., druggists of Hyde Park. After a four years' connection with this firm he entered the employ of John T. Kesley, a former pharmacist of Charlestown. At the end of a few years' residence in Charlestown he migrated from that district to South Boston, and he had since been a resident and prominently identified with that district. About six years ago he succeeded, and has since conducted and greatly enlarged the business of, William A. Morris, corner of West Broadway and N. streets, one of the oldest established drug stores in South Boston. In connection with the drug business Mr. Bardeen made a study of medicine, and although not a practicing physician, he has been commonly called by the title of doctor. In March, 1902, at a joint meeting of the Boston school committee and the board of aldermen, Dr. Bardeen was elected a member of the school board. With this exception, Dr. Bardeen never held a political office. He was a member of the ward thirteen ward and city committee, and a charter member of the Tammany Club. Several months ago he met with a serious accident, his carriage being run into by a car, and it is thought by many that he never recovered from the effects of the collision. At a meeting of the South Boston Druggists' Association, it was voted to close all the places of business of the members during the hours of 9 to 11 on the day of the funeral. It was also voted to send a delegation to represent the association. The Royal Arcanum, the Irish-American Club and the Tammany Club of ward thirteen also voted to send representatives. Seldom, even in South Boston, has there been such a great gathering of people as was present at SS. Peter and Paul's Catholic Church on Broadway, where the services were held, for Dr. Bardeen had been a kind friend of the poor and needy. A solemn high mass of requiem was celebrated. The interment was at Mt. Calvary Cemetery. The floral tributes were elaborate and beautiful.

There has been some little talk in the trade here recently over a circular letter issued by Weeks & Potter Co. in regard to the Detroit plan for the regulation of the sales of patent medicines. These circulars were distributed to the trade of this section and were in the nature of a protest against the plan, asking the retailers to signify their approval or disapproval of it. The objections advanced were that the plan was in the nature of a trust, the committee which is to designate what houses are to be customers of the manufacturers has too much power, and the retailer who has capital and a desire to buy in quantity lots is discriminated against. The visit of President F. A. Faxon and ex-President James E. Davis, of the N. W. D. A., was taken as a significant fact, and there has been much

animated discussion over the matter.

The "white list" of jobbers already issued by the N. W. D. A., includes for New England the houses of Carter, Carter & Kilham, Gilman Bros., Weeks & Potter, West & Jenny, Geo. C. Goodwin, Smith, Benedict & Co., Cutler Bros. & Co., Rust & Richardson Drug Co. and G. O. & J. G. Wilson, all of Boston; C. P. Alden, of Springfield; Bush & Co., of Worcester, and C. H. & J. Price, of Salem. Some surprise was created that the Theodore Metcalf Co. and Geo. S. Cheney & Co., of Boston, are not recognized, but the reason given is that the association does not consider either house a jobbing firm. A member of the latter house, while unable to understand this ruling, says it does not bother them much. When the Campton plan was brought into operation, finding that they were to appear on the black list, they wrote to the association regarding it, but received no reply, though three letters were sent. Their name appeared on the black list, and they found that they had no trouble in buying all the goods they wanted. Theodore Metcalf & Co. say application for admission to the N. W. D. A. was made some time ago, but was refused. They do not take a serious view of the matter. The senior member of one of the leading wholesale drug firms in Boston says there is no occasion for all the talk that has been made. He believes the circulars issued by the Weeks & Potter Co. were merely to advertise the firm by appealing to the sympathy of the retailers. He insisted that the retailers, as a rule, are in favor of the plan, that is, all of them except the cutters. He accuses the manufacturers of a lack of interest in the matter, and is afraid, judging from past experience, that cutters will have no difficulty in getting all the goods they want. A prominent cutter is anticipating a very strong fight, but expects to come out ahead. He characterizes the whole scheme as one to insure a profit to the wholesaler, and a selfish scheme at that.

Andrew G. Weeks, Jr., of the Weeks & Potter Co., is perfectly willing to discuss the matter, and says that "in order to get an idea of the opinions of the retail druggists of New England, as to whether they are willing to give up rights which their capital entitles them to, and which they would be obliged to give up under the original plan, we sent out our circulars and cards. The replies received covered some 30 per cent of the dealers in New England, and 60 per cent of the replies did not favor the plan, while 40 per cent of them expressed willingness to give up such rights in order to have the plan tried. Under the plan which has been submitted, our inquiry to the retailers may have seemed unnecessary, and our action in making the inquiry has been condemned on many sides. The fact that the plan was submitted does not necessarily mean that every manufacturer is going to follow the plan, and many might independently enter into it with a view of trying the plan as originally proposed. Such action we should heartily oppose, in accordance with the principles set forth in our circular. The plan, as modified, is, we think, a good one, and although we are opposed to the rebate system, we nevertheless shall urge all our friends in the trade to live up strictly to the contracts submitted by the manufacturers. Its complete working would undoubtedly result in hindering cutters

from securing supplies; but if any good results are to be obtained from it the manufacturers have not to be much more active in enforcing their contracts than they have ever been, and it will require considerable detective work, so to speak, on their part, which some leading manufacturers seem very slow to undertake, judging from our experience in the matter. Many wholesalers have criticized our circular because it did not strictly apply to matters as they stood at the time of its issue. In this they may be right, nevertheless, they failed to understand our object. We are always working for the benefit of the retailer, and we hope no action of ours will be considered as contrary to such interests."

There is certainly a humorous side to the affair. Houghton, Dutton & Co., who have an immense store where one may buy almost anything from candy and rubber boots to clothes lines and sets of Thackeray, have a drug department, where they sell patent medicines at 9, 19, 49 and 99 cents, and so on. Now Houghton & Dutton are becoming alarmed, and have issued the subjoined touching appeal.

"CARD TO THE PUBLIC."

"The old fight concerning the sale of patent medicines is revived, and this time the signs point decidedly to strife. The parties to this conflict are aligned as hitherto; it is Trust vs. Public, as it has always been. On one side are ranged the cutters, who by manufacturers of proprietary medicines with millions of dollars behind them. Against this insatiable combine are pitted a few dealers known to the public as 'cutters,' who are satisfied with a reasonable profit on these as on other goods. The purpose of the combination is to prevent the 'cutters' from obtaining any good whatever in this line of trade, so that the former outrageous prices may be restored. Is this a propitious season for such a movement? At a time when thousands remain unemployed, when the relief of prevailing destitution has become a grave official problem, when, as never before, the people are applying the stern lesson of self-denial, and when the unusual prevalence of sickness lays an additional burden upon them, we submit that it seems nothing less than a capital outrage for a combination of extortioners to attempt to force back the old prices of this trade. At such a time should necessities be dominated by the whims of a few? If the people have any rights whatever, ought they not, in such times at least, to be able to procure the supplies of the sick room without submitting to such domination? How can this purpose of the monopolies be defeated? Let the people who are affected by these prices refuse to buy from druggists belonging to the trust, then also obtain from the 'cutters' the names of such manufacturers as are leading the combine, and refuse to use their goods. Let the people remember that the object of this is a fight for cheaper prices. This is pre-eminently the cause of the people, and we make our appeal directly to the public. Will you sustain us, or will you surrender your rights and ours to the trust? Do you choose to pay an enormous profit on your drugs and medicines for the mere gratification of a few nabobs, or will you stand by those who are willing to supply these goods at prices not akin to highway robbery? In this war our interest are yours, and with your support we can win."

It will be interesting to see if the retail druggists are willing to go into a battle against this "insatiable combine," under the leadership of a house like Houghton & Dutton, which puts one in mind of a devil-fish in the way it puts out its antennae and sucks in trade which used to go to a hundred small stores before this firm had so many departments. Druggists generally do not become fond of these great establishments which take away trade legitimately belonging to druggists.

An important meeting of the state board of registration in pharmacy was held at 13 Beacon street to consider complaints lodged against William F. Tripp and Dr. E. A. Cardin, of Fall River, and Charles A. Shea, of Marblehead, for the violation of sec. 1, chapter 472, of the acts of 1893. This section prohibits any person registering as a pharmacist from permitting the use of his name, or his certificate of registration, by others in the conduct of the business when he himself is not the owner and actively engaged in such business; also from violating any of the laws of the commonwealth now under the supervision of the board of pharmacy, and especially the laws relating to the sale of intoxicating liquors. The board has the power, under this law, to suspend any person's registration as a pharmacist, and his certificate, for such a term as may be deemed fitting, and in flagrant cases the certificate may be revoked. These were the first complaints made under the new law, which went into effect last June, and much interest was manifested in the cases by druggists generally. The three alleged offenders were duly summoned before the board at its special session, but only Dr. Cardin appeared. President Whitney presided, and the meeting was held behind closed doors. The full board was present. In the first case it appeared that the certificate was obtained by the owner in 1885, two years after he had left the drug business, and while engaged in railroading. From 1883 to 1892 he had no connection with pharmacy in any way. In the latter year Tripp was approached by a man who was about to open a drug store, and wanted to hire or purchase his certificate. An agreement was entered into by which for the consideration of \$10 per month Tripp's certificate could be used. From the evidence in the second case it appeared that the certificate had been let for \$3 a day, and in the Marblehead case it was elicited that an agreement had been made by which a man not registered was to obtain a sixth-class liquor license, contrary to statute, the owner of the certificate being engaged in another kind of business in another city. After a review of the facts presented it was unanimously voted by the board that the certificates of William F. Tripp, Dr. E. A. Cardin and Charles A. Shea should be suspended.

H. F. Folsom & Co., druggists, Portland, Me., have failed.

At Berlin Falls, N. H., N. J. Marchand & Co. have opened a drug store.

Henry J. Goulding, of Oakland, Me., has opened a pharmacy at Corinna, in that state.

A new drug store has been established at Newport, Vt., with C. F. Davis in charge.

Island Falls, Me., adds to its list of business places a drug store, of which S. R. Crabtree is the owner.

E. J. Sawyer has opened a drug store at the corner of Washington and School streets, Egleston Square, Boston.

Charles H. Bradbury, 97 Cambridge street, Charlestown, has sold out to Albert H. Barnes and E. Willard Shaw.

Thieves entered the apothecary store of S. G. Cottrell, at 19 Chadwick street, Roxbury, and stole \$10 from the cash drawer.

J. C. Oxley & Co., druggists, of Wakefield, have bought out W. S. Bickford, of Reading, and are going to enlarge the place by taking in an adjoining store.

Edward Farrar has opened a drug store at Glenwood station, Mcford. It contains a Low fountain of beautiful design.

At the North End of New Bedford, J. H. Kenally will seek a fortune in a new pharmacy, of which he is the proud proprietor.

F. A. Shurtleff, South Paris, Me., whose drug store is a popular place in summer, has lately put in a new soda fountain.

Nelson M. Stetson, druggist, Newbury, Vt., has bought a soda fountain of Tufts. Pawtucket, R. I., has a new drug store, E. J. Slattey being the proprietor.

Among the patents just granted to New Englanders is one to A. A. Noyes and A. A. Clement, of Boston, for the manufacture of "paramidophenol sulphonic acid."

Two Maine druggists, W. H. Stewart, of Lewiston, and J. S. Towne, of Brunswick, have just bought soda fountains of the Low Company, in anticipation of the summer trade.

Among the victims of some swindlers named Bellah, who were recently arrested in Woburn, is Arthur Whitchee, a druggist in that city, who trusted them to the extent of \$25.

Mr. Crowell, of Winchester, who is well known in connection with the manufacture of "Bovox," has lost his father, Capt. Rufus Crowell, one of the prominent citizens of Chelsea.

Ernest Wadewitz, of New Haven, Conn., has lately moved, and his new drug store is very tastefully fitted up. Mr. Wadewitz bought two soda fountains from the Low Company.

At the Beyercroft Pharmacy, in Cambridge, ordinary prescription have lately been filled for the poor without charge, the physician's certificate of the patients' inability to pay being sufficient.

C. A. Baker, of Fall River, one of the oldest druggists in the state, was a heavy sufferer by a large fire a short time ago. He is, however, still doing business, though laboring under disadvantages.

Mrs. Horace Goodwin, of this city, has invented a spoon which will make it pleasant for invalids to take medicine. The spoon carries a hinged lid, which prevents the escape of unpleasant odors, and likewise the spilling of the medicine.

Hon. Gorham D. Gilman, of Gilman Bros., is receiving many social honors. He has lately been the guest of the New England Furniture Exchange at its annual banquet and addressed the Art Club on the subject of "Hawaii, Past and Present."

Already promoters of the plan to have a free training school for plumbers in this city have obtained \$1,700, owing, largely, to the efforts of James W. Tufts. Mr. Tufts put in \$100 and his partner, James N. North, duplicated the generous contribution.

According to the returns filed at the State House, the Talbot Dyewood & Chemical Co. has as assets, real estate, \$6,500; machinery, \$21,400; cash, \$24,182; stock, \$30,434; miscellaneous, \$2,535. Liabilities, capital, \$60,000; debts, \$9,141; net income for the year, \$4,530.

Burglars entered the drug store of John H. Sullivan, Gore street, Cambridge, about a fortnight ago, by breaking the glass in the front door and then turning the key by thrusting a hand through the opening. About \$10 was stolen, besides some cigarettes. The thieves probably were boys.

J. D. Tyler, druggist, Windsor Locks, Conn., took a dose of belladonna to relieve pain. He soon discovered that he had taken an overdose, and treated himself with antidotes. Early the next morning he went into a stupor, and several physicians were summoned. They were unable to arouse him, and later he died.

As there has been considerable talk here about an epidemic of grip this winter many physicians and others have been interviewed on the subject. Among those who gave their views on various phases of the question is E. W. Taff, representing B. W. Neil & Co., wholesale druggists, who said: "I do not believe we shall have it to any extent this year. We do not expect an epidemic and are not getting in any extra stock of remedies."

Robert S. Joy and Isaac Jacobs, self-confessed counterfeiters, have been arrested for using counterfeited labels and form of advertising, and also using counterfeit trademarks. Jacobs is a cigar-maker by trade, and it is alleged that he and Joy have been counterfeiting the brand of "J. A." cigars, manufactured by Alles & Fisher, of Cambridge street. The men admit their guilt and the plates by which boxes and trademarks were stamped have been recovered by the police.

The first convictions under the statute of 1885 forbidding the sale and use of opium for smoking have been secured in the municipal criminal court. Judge Burke has fined four Harrison avenue Chinamen \$250 each. They were arrested for maintaining a room where opium was sold. These habitations of vice were raided by policemen, and several opium outfits were seized. Five fines, aggregating \$100, were also imposed upon a like number of individuals for resorting to "opium joints" on Harrison avenue.

Apparatus for hot soda has lately been supplied by the Low Company to J. H. Lakin & Co., Boston; G. K. Mountain, East Boston; Frank Tucker, Tremont street, Roxbury; C. J. O'Shea, Salem; Bernard Billings, Newton Upper Falls; W. S. Tower, Melrose Highlands; Bates & Kirby, New Bedford; James O'Hare, Providence; Thomas & Co., and C. S. Balley, New York City; C. F. Gibbon, Washington; all of whom are druggists. W. D. Grace, Portsmouth, N. H., has ordered both hot and cold apparatus of the Low Company.

Charles R. Kirby, a drug clerk in Worcester, was in court the other day to answer to a complaint for being a fugitive from justice. Constable Nickerson, of Vineland, N. J., testified that Kirby was one of three members of the excise commission for Cumberland Co., N. J. This commission had power to grant liquor licenses. The people of Vineland were particularly averse to liquor selling, and when the Supreme Court recently declared the liquor dealers brought suits against its members for extortion. Their efforts met with success, and in the case of the Cumberland County commission they secured an indictment for extortion. The other two members of the commission had been arrested in New Jersey prior to Kirby's arrest. The judge here said he did not think Kirby was a fugitive, and that, if the New Jersey authorities want him, the thing to do is to get out requisition papers and then come after him. The court ordered Kirby to be discharged.

PHILADELPHIA.

The Dana Sarsaparilla Co. has published the first series of its prize lessons in penmanship for boys and girls. The book is intended for residents of Maine, New Hampshire and Massachusetts under 15 years of age. It closely resembles the copy-books used in schools, such as those of the Spencerian and other systems. Four prizes are offered, amounting to \$100, the first being \$50, and the others \$25, \$15 and \$10 respectively. The only conditions are that the work shall be done with black ink and without assistance, and the books mailed to the company at Belfast, Me., by May 1, 1894. Rev. A. E. Winship, editor of the Journal of Education, Boston, will act as judge.

There entered the drug store of S. J. Clark, in Attleborough, about ten days ago, an old man who said he wanted some alcohol. Herbert Mason, the clerk in charge, refused to sell it without a prescription; but, as the visitor pretended to be an umbrella repairer, and said he wanted the liquid solely for cleaning the ribs of the umbrellas, and asked to be favored because he was an ex-soldier, Mason was persuaded to make the sale. Into the alcohol he put some tincture of aconite. Upon the pint bottle he put two labels, one "For external use only," the other, "Poison." Over and over again he cautioned the buyer not to swallow any of the stuff, telling him that it would cause death. Now, when the stranger went out he met six other tramps who were waiting for him, and they concluded to risk taking a drink. Two of the strollers were killed and all the rest escaped only by a slim margin. It was a horrible experience for young Mason, though nobody doubts that he used great care in giving his warning.

School Committeeman Henry D. Huggan had in his handsome drug store on Maverick Square, East Boston, on New Year's day, two customers who made the most desperate effort to wreck and ruin it. They smashed the show cases, the plate glass in the door, and did altogether many hundreds of dollars' worth of damage. These troublesome visitors were Samuel McSheehy, aged 27 years, proprietor of a drug store in another part of East Boston, and William Sullivan, aged 23 years, a substitute letter carrier. They both appeared to be intoxicated. While being served with soda, one of them addressed some insulting remarks to a lady customer present, which brought a protest from Mr. Huggan. They would not desist, and upon Mr. Huggan's sending one of his clerks for a policeman, McSheehy picked up the glass from which he had been drinking, and threw it at the school committeeman's head. Then the destruction began. Glasses were thrown here, there and everywhere. After the glasses there followed the flavor bottles. They crashed into the beautiful show cases, not alone breaking the glass, but damaging the thousand and one articles that apothecaries delight to show for the admiration of their customers—toilet sets, and the like. Glasses struck in among the bottles adorning the shelves, and also shattered the plate glass of the door. Mr. Huggan kept dodging the missiles. The lady customer had fled to the street. The lady customer, also, sought safety in flight. The men for a few minutes had the store practically to themselves; but the clerk found a policeman in a few moments and the vandals were arrested.

Philadelphia, January 11.—Many of the drug houses in this city are busy taking account of stock, and until that is completed there will be very little attention given to improving their business. In general trade circles there is somewhat of an improvement, especially in the demand for quinine. It is said that there is very little of this drug in second hands, and that there is a possibility of the price being advanced. The importers hold the key to the situation, and if they desire to mark the price up there is nothing to prevent them, as they have nearly all the visible supply of the drug.

The last two weeks of the old year were good ones for the drug trade, and the business done during that time had considerable to do with the improvement in the year's business. For several months the wholesale and retail druggists have been doing very little business, and at one time it seemed that all of them would run far behind in their business, as compared with 1892. While to some extent there has been a falling off, it is not as large as it was thought it would be, as the business done in the latter part of December was very large and helped to bring up the receipts. The new year started out very well, taking everything into consideration. Most of the large wholesale houses have plenty of orders, and there is no apparent lessening of them. In druggists' sundries there is not much being done, as is generally the case just after the holidays, but, notwithstanding this, some of the manufacturers are getting their goods ready, and in a short time will start their men out on the road. Considerable attention is to be given to the southern trade this year, and old conservative Philadelphia is going to make a big bid for the drug business of that section of the country.

The retail druggists are doing a good prescription trade, and for once they are not complaining of the manner in which some houses are selling patent medicines. While patent medicines are cut by a number of drug stores, there is not much of a reduction in prescriptions. The prices are fairly well maintained, and, as a rule, the druggists who make a cut in the price of patent medicines are the ones who generally uphold the price of prescriptions.

Considerable excitement was created in drug circles during the last week in December by Keesbey & Mattison Company, manufacturers of chemicals and pipe coverings at Ambler, a little town about twelve miles out of Philadelphia. All the excitement was caused by the posting up in the works of the company the following circular:

"Notice to our employes: The preparation and introduction of the Wilson bill in congress, having for its object the lowering of the tariff, has caused this company to lose a large amount of business among the textile and other milling interests, lessened our demand for labor, and is daily depriving the stockholders of the company of the ordinary profits of a manufacturing business. Therefore, those of our employes who are in sympathy with this measure are requested to hand in their resignation to the superintendent, as it is only fair to their fellow-employes that, as their work grows less, it should be done by the men who are not responsible for the present deplorable condition of economic affairs. With the passage of the Wilson bill wages will be reduced, and there will be less work at the reduced wages, it being to do only by the greatest exertions and sacrifices upon the part of the officials

and stockholders of the company that the machinery and covering departments of these works are at present running, instead of being closed for the winter, as are so many mills in our vicinity."

This circular was signed as follows: "Keesbey & Mattison Co., Richard V. Mattison, M. D., President and General Manager." In speaking of the circular Dr. Mattison is reported to have said that in employing new men preference would be given to Republicans, as they should not be made to suffer for the present depression, while Democrats, who were directly responsible for it, should be made to feel it in preference to Republicans. This circular caused considerable discussion in trade circles, and in the mining districts a meeting was held, and several doctors are said to have taken the stand that they will not use any of the articles manufactured by this firm. The Philadelphia Times, in an editorial, jumps on the firm, and in response to the editorial the following letter was sent to the Times:

"I notice in your editorial columns today that you have taken considerable space to refer to our company, and a foot note states that 'the company is discharging all of its Democratic employes.' Now, it is one thing to state opinions and it is quite another thing to state facts, and I do not think it correct for you to state things as facts which have not occurred.

"Of the employes dismissed on account of the depressed condition of things industrial, all were Republicans except three, who were Democrats, and two of these Democrats were re-employed by our company some two weeks ago.

"It does not strike me that this action looks very much like a threat to work up high tariff majorities in manufacturing districts. Does it? No person has ever been discharged by our company on account of his religious, political or economic opinions.

Respectfully,
"RICHARD V. MATTISON, M. D.,
"President Keesbey & Mattison Co."

A committee was appointed last month consisting of Messrs. Sturgis Coffin, Alfred G. Wright, Theo. Ricksecker and Henry Dalley, Jr., to get up a petition to protest against the new tariff bill, which so seriously affects the perfumery business. A meeting of about twenty-five firms representing the leading manufacturers was held in New York on December 20. The sense of the meeting was that the duties now prevailing on imported perfumery should at least remain the same. This committee has issued a circular to the trade, in which it says:

"It is important that the committee should have your support, and we urge upon you immediate action. You should immediately communicate, personally and by letter, with your representative in congress, urging upon them the necessity of our case, and that these dealings now prevailing should be maintained. You have already doubtless been informed that a stamp tax on our goods is contemplated and has a very strong backing in congress. To those who will recall the difficulties and expenses attending the imposition of this tax as a war measure, it will not be necessary to show how onerous a burden such a tax will be. We therefore urge you to take prompt action in expressing to your representative in congress our objection to the imposition of this stamp tax."

The trade at large have authorized the committee to spend such sums of money as shall seem necessary in furthering these ends, and have decided that a contribution of \$100 from each of the perfumery manufacturers will probably defray all the necessary expenses.

The first change to be reported this year is that in the well known drug store at Fifteenth and Market streets, which occurred on January 2. Several years ago Amos Garnall & Co. conducted a wholesale and retail business at this stand, and were afterwards succeeded by Edward C. Jones & Co. Everyone in the city knows and respects Edward C. Jones, and nearly all are familiar with the cause of his retirement. To those who are not it may be said that Mr. Jones' kindness and generosity and constant desire to help others got the better of his judgment and led him into extending credit to many who proved unworthy of his confidence. The store then passed into the hands of W. H. Earl & Co., who found it a task more difficult than they expected to build up a business that for years had been losing ground. Two years ago Mr. Earl closed the wholesale department, and has since devoted his attention to the retail trade. Early in December he concluded to retire from business, and, consulting Frank E. Engelman, placed the store in his hands for sale. A. Eugene De Reeves, the purchaser, during the past three years has visited every drug store of prominence in the United States, and his natural astuteness and large experience led him in a moment to perceive the advantages of this location, and he hastened to close the bargain. The store is immediately opposite the Market street exit of the new Pennsylvania depot, and is unquestionably more favorably situated than any other pharmacy in the neighborhood to catch transient trade from the numerous passengers on this road. Mr. De Reeves is a graduate of the Philadelphia College of Pharmacy, and was formerly with J. T. White, at Twenty-first and Pine streets; afterwards with Milton Campbell, Mr. White's successor. He was next employed by the H. K. Mulford Co. as salesman, and for the past three years has traveled in the interests of the Trommer Malt Co.

After having enjoyed a vacation of ten days, the students of the Philadelphia College of Pharmacy resumed their work on the evening of January 3. Many of the boys did not leave the city. Instead of taking a rest they took advantage of the holidays to do some hard studying, and, in consequence, are now in excellent mental trim for the approaching examinations. The laboratories were crowded at this break in the lecture courses, and both junior and senior students advanced themselves in their work. Then, too, those who came to the college from far-off western and southern cities did not have time to become homesick.

The Board of Trustees of the College have decided to offer another annual scholarship. It is to be in memory of the late Prof. John M. Maisch. One thousand dollars has been set aside for this purpose, and its interest will be available for the purchase of lecture tickets. It is considered to be especially fitting to name a scholarship after Prof. Maisch. He was always the friend of the man who was handicapped with poverty or limited resources, and many of the alumni will acknowledge what he has done toward helping them, though it was not shouted from the house-tops. There are now four scholarships of \$1,000 each offered by the college—those in honor of Robert Bridges, Edward C. Jones, Peter Williamson and John M. Maisch. The income annually is

about enough for the tuition fees of six students.

Even the gentle, art-loving Japanese become bilious. That is to be inferred, at least, when the handsome specimen of camolom added to the college museum by Prof. Trimble is seen. He received it from the Japanese commissioner to the Columbian Exposition last week, together with a neat pamphlet on its therapeutic properties and the process of manufacture. American pharmacists, not having seen Japanese camolom before, would not recognize the foreign product. Its physical appearance is vastly different, and also superior from a point of beauty to the heavy impalpable powder of home manufacture. It comes in glistening pure white scales, which are remarkably light in weight and very bulky. The commissioner writes that one family has made this camolom for over 300 years in a village near Tokio. The annual product is said to be 15,000 pounds. In the Japanese language camolom is known as Keifun. The chemists making it pride themselves on its absolute freedom from mercuric chloride.

The Zeta Phi Society of the senior class has admitted Miss Florence Yaple and Miss Emma L. Kaye as honorary members, and presented them with handsome pins. A glee club and quartet have been organized in the college with C. L. Weidner, W. E. Bowen, F. H. Blackmer, B. La Rue Lauterman, Abner Webb, H. M. Wasley, H. G. Miller, F. W. H. Schearer, O. W. Sellers, H. S. Tompkinson, H. E. Weber, Richard Reeser, H. F. Howell, F. M. Hatten, D. A. Loser, W. L. Light, W. C. Aughinbaugh, F. Rhein, C. L. Fluck, U. G. Hendee, G. F. Baker, R. M. Kaufman, W. G. Barlow.

Walter F. Ware, manufacturer of "Mizpah" specialties, has removed his establishment to 512 Arch street.

The firm of Finnerty, McClure & Co. has been dissolved, Mr. Finnerty retiring. The business will now be carried on under the name of McClure, Heritage & Co. at the same place.

Schandin & Lind, manufacturers of Garwood's standard perfumes, have opened a branch office under the direction of Robert Fergusson at 51 Mercer street, New York.

Philadelphia has taken up the atomizer fad, which a year ago appeared above the commercial horizon. The styles and prices have varied considerably. An increase in the perfumery trade has been a natural result.

W. J. Lerch, the representative of Colgate's perfumery and soap, with headquarters in Cincinnati, spent New Year's week in this city with his friends, Mr. and Mrs. MacLaren, on North Fifteenth street.

By the failure of Fleischman & Co., at Pittsburg, dealers in dry goods and fancy articles, a number of the wholesale drug houses in this city were stuck, especially those who had supplied that firm with perfumery.

John C. Rogers, lately salesman for Schandin & Lind, has started into business for himself. He has associated himself with Mr. Chapman, and the new firm will be known as Chapman & Rogers, dealers in perfumery.

George D. Feicht & Co., 604 Arch street, report a large sale in their 3 F Cough Drops. This firm has also on sale a large line of W. H. Brown Bros.' perfumes.

They also handle Gilpin, Langdon & Co.'s powdered drugs and the pharmaceutical preparations of Sharp & Dohme.

William J. Pechin, the enterprising druggist of the northwestern section, reports a good Christmas business. Mr. Pechin has just made a contract with Charles Lippincott & Co. for a large soda fountain. It will be a unique as well as handsome ornament, and will occupy the greater part of the Twentieth street side of the store at Twentieth street and Columbia avenue.

George M. Smith, who for many years has traveled the country over as a salesman for John M. Maris' Sons, but who took it in his head last year to remain in the office of the firm, has again changed his mind and started on another tour. It is thought by Mr. Smith's friends that he is on his way to Florida to challenge the winner of the Corbett-Mitchell fight. Mr. Smith is a great sportsman, and for the last four months he has been in active training. He is, as the sporting fraternity put it, "fit to make the fight of his life."

A dinner was tendered to Robert S. Lucas on Wednesday evening, December 20, by his fellow-employees of the cashier's department of the firm of John Lucas & Co., paint and glass manufacturers, 322 Race street. Mr. Lucas is soon to leave this city to assume duties in the branch office of the firm in Chicago. An enjoyable evening was spent, and Mr. Potter, head of the department, on behalf of those present, spoke in glowing terms of the pleasant relations existing between employer and employes, and wished the guest of the evening godspeed and success in his new field of labor. Mr. Lucas felicitously thanked the company for the honor done him, and hoped next year to be at the festive board again with the boys. There were present Messrs. Potter, Haulterman, Bryan, Lorcey, Heiser, Queen and Simpson.

On the evening of December 25 a fire broke out in the building 123 North Seventh street, occupied by Wiley & Wallace Co., dealers in drugs and chemicals, and before it could be extinguished about \$500 damage was done. The fire was discovered by policemen about 7:45 p. m. They burst in the door and found flames in some hay and rubbish near the center of the store, close to the elevator. With some assistance the policemen stamped the fire out, but by the time the firemen had arrived and were getting their hose out a fire broke out on the third floor in another quantity of rubbish. The fires on the first and third floors appeared to be independent of each other, but before that on the third floor had been extinguished the flames had crept up the elevator to the fourth floor. The firm was about to move to a new building, and the store was for rent. On November 11, 1889, there was an explosion of flash powder in the basement of this store, instantly killing Joseph Wiley, the senior member of the firm, and two employes. Five persons were injured and nearly every pane of glass in the building was broken.

A new olive mill has been put in operation in Montecito, Cal., which as an industry promises great things. The machinery is of the best type and the product is a superior grade of oil. The largest sale of olives by any individual rancher to the company is recorded at sixteen tons, while another has delivered eight tons.

DETROIT.

The duties of the proprietor of a drug store are manifold and the man who, in these latter days, can successfully operate a pharmacy must have all of the qualities of a Figaro. In addition to the duties which he now performs he may be called upon to assume others if the recommendation of the president of the public library commission becomes operative. That official recommends that there be established eight library stations in this city where patrons of the city library may go and leave requests for the books they want. He believes also that druggists would be glad to do this work for a nominal compensation. Each day the eight sub-libraries would get from the public libraries the books that had been requested the day before, and keep them in readiness for those ordering them. In way of remuneration the sub-librarians should receive \$2 for each 100 books handled up to the point of \$20 a month, and then only \$1 a hundred. The president of the commission thinks the plan would greatly increase the circulation of the books. Whether the druggist will direct his efforts toward establishing the scheme or not is a question. Many druggists believe they have enough to do now.

The Michigan Board of Pharmacy met at Saginaw January 10.

L. T. Lochner, druggist at Adrian, has organized a stock company to manufacture a new proprietary remedy.

Mr. Percy Latham, with Billings, Clapp & Co., manufacturing chemists, Boston, Mass., has been visiting the drug trade in this city.

E. C. Kinsell, druggist, 752 Michigan avenue, will remove his stock to the store recently made vacant by the removal of S. F. Fritzele to 4 and 6 Grant street.

E. R. Wilson, for many years one of Grand Rapids' well-known druggists, died recently. He was 64 years of age, a prominent Mason, and a member of the Old Settlers' Association.

Brown's Pharmacy recently suffered a small loss by fire. A machine in the basement employed by an outside party for roasting peanuts, was the cause of the trouble. Damages very slight.

John G. Wise, Ph. G., '85, Chicago College of Pharmacy and for a number of years a retail druggist in Chicago and later in Indiana, is now with the Detroit Standard Savings & Loan Association.

John Fahry and Anthony Drach, partners in the drug business at Benton Harbor, have been arrested for quarreling and drawing pistols. Chicago wholesalers have taken charge of their store, which will probably be closed.

Miner E. Keyes, a graduate of the Philadelphia College of Pharmacy, has leased the premises corner East Fort street and Campau avenue for a drug store. Farrand, Williams & Clark are furnishing the entire stock and fixtures.

The "free remedy" dealers operating from Marshall have been denied the use of the mails, the postmaster of that city having been ordered to withhold the mail of all local firms or individuals advertising to send free remedies to the suffering. The postoffice inspector has decided that the business is illegal. At least twelve firms were engaged in the business.

Farrand, Williams & Clark are remodeling and thoroughly overhauling the premises recently occupied by Williams, Davis, Brooks & Co. With new fixtures, convenient location and increased facilities for transacting business they will not only benefit themselves but their customers as well. They expect to move at an early day.

M. S. Goodman, secretary and treasurer of the Hazeltine-Perkins Drug Company, Grand Rapids, has resigned from that position and will engage in other business. He is succeeded in the drug business and in the two offices, by M. B. Hazeltine, son of Dr. C. S. Hazeltine, president and principal stockholder of the corporation.

W. J. Crane, who has represented Lord, Owen & Co., wholesale druggists, Chicago, in the Upper Peninsula for a number of years, has resigned his place with that concern and taken a similar position with Fuller, Fuller & Co., also of Chicago. His territory will embrace Northern Wisconsin and Northern Michigan. Nequawbe will be his headquarters.

Dr. Kedzie, state analyst, has recently been examining various food products now on the market. A sample of coffee was found by him to contain 12 per cent coffee, 20 per cent of wheat or barley and 68 per cent of peas or beans. A sample of coffee extract was found to consist of a mixture of roasted chicory and peas, with sufficient glucose to make it into a solid roll. Jellies and maple syrups were found quite generally adulterated.

QUINCY, ILL.

Miller & Arthur report a good holiday trade.

Percy Brown, of Chicago, is the prescription clerk at Christie's Pharmacy.

The City Hall Pharmacy, until recently owned by Christie & Granacher, now belongs to ex-Mayor Walker.

Dr. J. Y. Lewis, of the Central Pharmacy, reports a good holiday business. He has a fine store and enjoys a good business.

The Quincy Retail Druggists' Association will hold their annual meeting in February. H. Schroeder is president and Frank C. Parker secretary.

Mr. Schanz, secretary of Sommer, Lynds & Co., wholesale druggists, has been soliciting signatures from the drug trade to a petition memorializing Congress against a reinforcement of the stamp duty on proprietary articles. A majority of our druggists signed it.

A newspaper man at Omaha, Neb., brings to light a few of the disadvantages under which the druggists of that state labor in the matter of liquor selling. The law requires each applicant for license to sell liquor either as a beverage or for medicinal purposes, to publish a notice of such application for two weeks in the newspaper having the largest circulation in the county. The rate for such publication is fixed by law, so that the cost of such notice foots up \$13, to which must be added a fee to a notary for certification, which makes the total amount \$13.25. As one newspaper is disposed to cut rates and do the advertising for \$3.25, its chief competitor demands an investigation of circulation claims, and threatens to protest every application which is found to have been published in a paper not having the largest circulation.

THE HINCHMAN FIRE.

Wednesday evening, January 3, shortly after 6 o'clock, a fire was discovered on the third floor of the wholesale drug establishment of T. H. Hinchman & Sons, located at 76-78 Jefferson avenue, Detroit, Mich. The flames spread very rapidly, and almost before the fire department arrived the entire building was in flames. Most of the employees had left, and the few remaining ones barely had time to escape, after locking the vaults and safes and taking such books and other valuables as they could carry in their arms. The fire raged for about two hours and destroyed all the stock, with the exception of some heavy goods stored in the cellar, and what was locked in the vaults. The inside of the building was completely destroyed, leaving only the walls.

The cause of the fire is as yet a mystery. The loss on stock is something over \$109,000, with an insurance of \$63,000. The loss on the building is estimated at \$35,000, with an insurance of \$20,000.

Early the next morning the firm had rented temporary quarters at 31 East Larned street, put out their sign and were ready for business. They telegraphed their agents to stay out on the road, and through the kindly assistance of their neighbors they have been able to take very good care of their orders. Fortunately, the stock had been reduced as much as possible for inventory purposes, and goods which had been ordered for the new year had not yet arrived. Larger quarters will soon be secured, and with an entire new stock of goods, purchased at a most favorable time, the firm expect to soon be re-established, with their trade on a much larger scale than ever before.

The firm will lose thousands of dollars over and above their insurance, and "about the only consolation," said a member of the firm, "has been the large number of telegrams and letters which we have received from our friends in the trade, expressing their sympathy and offering their assistance. Many of our customers throughout the state telegraphed or wrote to this effect, and said they would buy as light as possible until we were able to take care of their full orders."

We print below a few of the telegrams and letters received from jobbers and manufacturers, showing the high esteem in which Messrs. Hinchman & Sons are held by these influential members of the trade:

(TELEGRAMS.)

Toledo, January 4.

Regret to learn of your loss. We offer our services.

WALDING, KINXAN & MARVIN.

Pittsburgh, January 4.

We learn with deep regret of your misfortune.

GEORGE A. KELLY CO.

Cleveland, January 4.

You have our sincere sympathy. Command us in any way that will be of service.

STRONG, COBB & CO.

Cleveland, January 4.

We wish to extend to you our sympathy, and will be pleased to render you any assistance in furnishing you goods or filling your orders for you.

BENTON, MYERS & CO.

New York, January 4.

Grieved to learn of your affliction. Command us freely.

MERCK & CO.

Philadelphia, January 4.

Receive heartiest sympathy. Can we serve you in any way?

JOHN WYETH & BRO.

St. Louis, January 4.

Regret to learn of your loss by fire. If we can be of any service, please command us.

MALLINCKRODT CHEMICAL WKS.

(LETTERS.)

Grand Rapids, January 4.

Gentlemen—It is with great regret we learn by press dispatches of the total loss of your stock by fire last evening.

If there is anything we can do for you in the way of making shipments until you can get another stock together, we will be very much pleased to do so.

If, in any other way, we can assist you, please call on us, as of all the competitors we have in our line, we have the warmest of feelings for you.

Very truly yours,

HAZELTINE & PERKINS DRUG CO.

Chicago, January 4.

Gentlemen—We notice by this morning's papers that you have been visited by the fire fiend. As we have had varied and repeated experiences in this line, we feel that we know how to sympathize with you in such a calamity. Allow us to most sincerely commiserate with you in this misfortune and interruption of your business. If we can serve you in any way, it would be our pleasure to do so.

Truly yours,

LORD, OWEN & CO.

Chicago, January 4, 1894.

Gentlemen—We learn by the morning papers with deepest regret of the misfortune which has befallen you by destructive fire. We hasten to express our regrets and that the distance lessens any prospect on our part showing our substantial sympathy.

Hoping your insurance will turn out well placed, and soon to hear of your early re-establishment, we remain

Very truly yours,

PETER VAN SCHAACK & SONS.

St. Paul, January 4, 1894.

Gentlemen—We notice with extreme regret the account of your fire, and trust sincerely that the loss is well covered by insurance, and that you will soon again be doing business in a larger and finer store, and with increasing prosperity.

It is a sad beginning for the new year, but we venture still to hope that the new year will be a happy and prosperous one for you in spite of this disaster.

Yours respectfully,

NOYES BROS. & CUTLER.

Louisville, January 4, 1894.

Gentlemen—We regret sincerely to see in the morning paper the announcement of your misfortune in the loss of your stock by fire.

From a similar experience some years since, we can fully appreciate your unfortunate position.

We feel sure that you are well protected by insurance, but this is no compensation for the loss of business, and great labor involved in such troubles. We hope that we may in due time, indeed at an early day, hear of your resumption.

Very truly yours,

ROBINSON-PETTIT CO.

Louisville, January 4, 1894.

Gentlemen—We notice with regret in the morning paper a statement of your disas-

trous fire. Having passed through just such an experience we write to tender our sympathy, and if there is anything in our power that would aid you in repairing the loss, we would be happy to render any such assistance as we can. With the hope that you will soon resume business and without material loss in the matter, we remain,

Your friends,

ARTHUR PETER & CO.

St. Louis, January 4, 1894.

Gentlemen—We regret to learn, through the daily papers, that you have had the misfortune of having a serious fire in your establishment, and beg to offer you our sympathy, and trust that your loss will not be very large, and that your interruption in business will be short. The papers say it started in your packing-room. Do you know how it originated?

Very truly yours,

MEYER BROS.' DRUG CO.

Kansas City, January 4, 1894.

Gentlemen—I was much pained to read in this morning's paper that your house and stock of goods had been destroyed by fire. From personal experience I know what this means, and I beg to extend to you my sincere sympathy. I hope the adjustment of your insurance claims will be satisfactory, and that you will soon be in shape for business. May the new year which opens so inauspiciously bring you much good in the end.

Yours very truly,

FRANK A. FAXON.

Philadelphia, January 4, 1894.

Gentlemen—We regret to learn from the newspapers this morning that your establishment has been visited by a serious fire. We beg to tender you our sympathy, and if we can be of any service whatever to you, shall esteem it a favor if you will kindly advise us.

Yours truly,

POWERS & WEIGHTMAN.

St. Louis, January 4, 1894.

Gentlemen—We regret very much to notice in to-day's paper that your store has been burnt out, and we beg to tender you our sincere sympathy. We hope you will soon be in a position to resume your business, and remain

Yours truly,

HERF & FRERICHS CHEMICAL CO.

Cleveland, January 4.

Gentlemen—We regret to note through the columns of the morning paper that you have met with a severe loss by fire. We hope that you are fully insured and that you will soon be in a position to resume business again. You are one of the oldest customers we have on our books, and our business relations have always been of the most pleasant character. We wish to extend to you our sympathy, and if we can be of any assistance to you or accommodate you in any way, please advise us.

Your friends,

THE GRASSELLI CHEMICAL CO.

New York, January 4.

Gentlemen—In the New York papers you are reported as having quite a disastrous fire.

We exceedingly regret to learn of your misfortune, but trust it is not as serious as reported.

Our December account can now wait your pleasure, and we regret not to be able to offer you a more substantial help.

Trusting you will soon be out of chaos, we wish for you a prosperous year.

Yours truly,

CROTON CHEMICAL CO.

Detroit, January 3.

Gentlemen—We greatly sympathize with you in your fire loss and great interruption to your business. If we can be of any service to you in any way, do not hesitate to call upon us.

Yours truly,

THEO. H. EATON & SON.

Detroit, January 4.

Gentlemen—We tried hard last evening and this morning to get at you people personally by 'phone and otherwise, but have been unable to do so. We wish to tender you our sincere sympathy, and if we can in any way serve you, do not hesitate to call upon us. We will be glad to serve you in any way through the medium of our establishment, to assist you in filling your orders, or in helping you out until your stock arrives.

The writer, as you are aware, has been very unfortunate in the way of fires, and can fully appreciate the unfortunate position which you are in this morning, and if our firm, in any way, can serve you, do not hesitate to call upon us. We will do everything in our power to facilitate your early re-establishment, and hope you will not hesitate for a moment to use us as you may see fit. With our sincere regrets, and hoping that the loss will not be as great as the papers have put it this morning, we remain,

Yours very sincerely,

WILLIAMS, DAVIS, BROOKS & CO.

Detroit, January 4.

Gentlemen—We sincerely regret to learn of the serious fire which occurred yesterday, and know from experience what setbacks a business house is subjected to under such circumstances. We trust that if we can be of assistance to you in any way that you will not fail to call upon us.

Again assuring you of our sincere regret for your misfortune and with kindest regards, we beg to remain,

Very truly yours,

F. STEARNS & CO.

Detroit, January 4.

Gentlemen—It is with very much regret that we feel called upon to extend to you our sympathy with regard to the loss and serious inconvenience you have suffered from last evening's disastrous fire. We feel that we are in position to keenly appreciate the situation from your point of view, although our mishaps of like character have never resulted in so complete destruction as yours in this instance. We trust that you will speedily resume with, if anything, improved facilities for the conduct of your business, and if we can in any wise assist you in the premises, we shall be only too glad to have you call on us for such assistance. Meanwhile we beg to remain

Sincerely yours,

ACME WHITE LEAD & COLOR WKS.

Detroit, January 4.

Gentlemen—We were unable to find any member of your firm while your fire was in progress last night, and only able to reach you by telephone quite late in the evening. We then expressed to you our sincere sympathy and offer of any assistance in our power, and will see you this morning and personally extend to you any help we can render you. We trust that after your insurance is adjusted you will find that you have not suffered loss.

Very truly yours,

FARRAND, WILLIAMS & CLARK.

CHICAGO.

Chicago, January 11—A review of trade for 1893 discloses a more pleasing condition than some had anticipated. The wholesale houses report that the total of trade for the year was in advance of the twelve months preceding. Up to June trade was exceptionally favorable prices being well maintained, but when the financial depression began to affect the whole country prices weakened and purchases fell off. Some little reaction for the better was felt in September, as stocks had been allowed to run so low that retailers found it absolutely necessary to replenish them. The holiday trade, particularly in sundries, was not so good as could be desired, but all things considered the drug trade has cause to congratulate itself on passing through the great financial depression of 1893 with so little injury. Jobbers, while granting all legitimate accommodation to their customers, have been guided by a policy of careful discrimination, and the effect has been the maintenance of a stable condition. Collections have been fairly good, better than could be expected under the circumstances. The new year starts out with every promise for an increase in profitable business. Medicines and drugs are less affected by hard times than the great majority of commodities. They are necessities, and the average man can always find means to procure medicines for his ailments.

The Amos and Swinford Co. will on a capital stock of \$2,000 manufacture and sell perfumes, complexion powders, etc.

The Ash Soda Fountain Co. is a new Chicago concern with a capital of \$25,000 contributed by Iluco Ash, Robert McMurdy and Fred W. Job.

The D. & L. Caledonia Spring Water Company, with a capital stock of \$50,000, has been incorporated in this city by John H. Doran, H. L. Langelier and J. J. McClellan.

The Mrs. Dr. Truenell Medical Manufacturing Company has been incorporated with a capital stock of \$50,000. Stockholders are Estelle Truenell, Lily Vanarsdale and Pearl Young.

Druggist D. B. Miller, of Glencoe, was arrested December 22 charged with selling liquor without a license and was released under \$200 bonds for later hearing. It is said that several other arrests of a similar nature will be made in the towns along the north shore.

Morrisson, Plummer & Co. now occupy the space heretofore held by Gerts, Lumbard & Co. under a sub-lease which has just expired. They are therefore given increased floor room, and claim to have the largest drug building, so far as square feet of floor space is concerned, in the city.

George Wagner, Jr., Ph. C., was recently appointed instructor in botany and pharmacognosy in the School of Pharmacy of Northwestern University and entered upon his duties December 18. He is a graduate of the class of '93, School of Pharmacy, Michigan University, at Ann Arbor.

James D. Sipp, a Riverside druggist, had for some time noticed a great falling off in his receipts and at last became suspicious of his clerk, in whom up to that time he had reposed the greatest confidence. A little detective work with

the use of marked bills resulted in trapping the clerk, G. E. Bluo, who confessed to having stolen \$90 in small amounts; \$450 was recovered.

Traces of the fire at 110 Randolph street are rapidly disappearing, and in a week or two things will be moving on as though nothing had happened. The Jno. Block Drug Co. were the chief sufferers, and the only occupants damaged by the fire itself. E. H. Bushler's stock of Schiefelin's pills and Fairchild's preparations was affected by smoke only, no damage being done that new wrappers will not repair. The Era's Chicago office is in the same room, but aside from a slight scorching of its desk, it sustained no loss.

On New Year's eve the Kent Chemical Laboratory was formally presented to the trustees of the University of Chicago. The dedicatory exercises were held in the auditorium of the laboratory, and were the principal event of the winter convocation, and, with possibly a few exceptions, the chief event in the history of the institution. All of the exercises of the evening were in keeping and sympathy with the dedication on the bronze tablet, which the donor, Sidney A. Kent, caused to be placed in the walls of the main hallway: "This building is dedicated to a fundamental science in the hope that it will be a foundation stone laid broad and deep for the temple of knowledge in which as we live we have life."

The principal address was delivered by President Harper. Many noted chemists were present at the convocation, among whom were: Profs. Remsen, Prescott, Baker, Russel, Smith, Long, Hillyer, Paul C. Freer. The total cost of the building, including furnishings, equipment, etc., was \$235,000.

Arthur A. Winter, a traveling salesman and former druggist, is in trouble. Some years ago he and James T. Dougherty owned a drug store in McCoy's Hotel. Dougherty sold out to Winter, accepting in payment five promissory notes of \$500 each. An expert, called in by Winter to examine the books, said Dougherty had secured more than his legal share of the business in the transfer. Winter's attorneys thereupon caused Dougherty's arrest after he had refused to restore the notes. Then Dougherty's attorneys sued Winter for \$50,000 on the ground of forcible detention, and, it is said, secured a judgment of \$750. When the writ of execution was served upon him by the deputy sheriff, he was engaged in making preparations for his marriage upon the following day. He refused to honor the writ of execution, and the next day the officer called again with a capias and arrested him. His fiancée refused to leave him and went with him to the sheriff's office and remained with him until he was arraigned in the county court. The father and mother of the young lady furnished \$2,000 bail, and Winter was released. It is said the execution was issued to secure the \$750 judgment.

A number of the leading druggists of Milwaukee, Wis., are preparing to fight the Wisconsin Telephone Co. The company, the druggists say, will not allow doctors and other customers to use the telephones in the drug stores, and insist upon the putting in of public pay stations. They talk of combining with the physicians and waging war on the telephone company.

ST. LOUIS.

St. Louis, January 11—With the beginning of the new year the clouds which hovered over the financial horizon for months past are lifting, and a brisk pick-up in business is expected in the next few months. The grand exhibit which St. Louis has been making throughout the entire period of business depression is exceedingly gratifying to her people. All that is hindering a general revival of business now is the tariff question, but this, it is hoped, will be settled in a short time.

The claim of the St. Louis Board of Health and the City Chemist that St. Louis drinking water was being badly polluted by Chicago sewage through the Illinois River, has been knocked out by Mayor C. P. Walbridge, who gives as his opinion, that the pollution of the water is due to local causes and that Chicago has nothing to do with it. The Board of Health, it will be remembered, had caused a chemical examination to be made of the water, and were so sure that Chicago was the source of the pollution that they asked the mayor to institute proceedings to prevent the completion of the Chicago sewage canal, now in course of construction. The board was of the opinion that the additional sewage which would come through the canal would make St. Louis water unfit to drink. The surprise of the Board of Health may be imagined when the mayor not only declined to take any action in the matter, but sent an interesting letter, wherein he relates the results of his personal investigation. He does not favor further superficial work, but believes a sufficient sum should be set aside to go into the matter thoroughly and remedy existing defects.

The latest move of Excise Commissioner Bell is an effort to make druggists and others dealing in "malts" and "bitters" take out dramshop licenses. In an interview he said: "It is my opinion that these proprietary medicines are intoxicating liquors, and I intend, in a day or two, to summon all parties dealing in these goods to appear before me and show cause why they should not take out dramshop licenses. The law says a druggist cannot sell or give away bitters or proprietary medicines containing intoxicating liquors without a written prescription from a regularly registered and practicing physician. If they fail to show that these 'malts' and 'bitters' do not contain intoxicating liquors, then I shall request them to take out licenses, failing to do which I shall have them brought into court." This declaration of war has been the cause of considerable amusement in pharmaceutical circles. One well known drug man spoke thus: "That is the most senseless thing I have heard in a long time. I have consulted a number of legal lights, and I was informed by each that there was no power to prevent a druggist from selling malts and bitters without a license. Again, bitters contain medicinal herbs, compounded with alcohol. We are already paying a license for selling alcohol, and if we were compelled to take out another license for selling bitters we would actually be paying double license. Any attempt to extort from us what is not fair and just will be fought to the bitter end."

William J. Lees, proprietor of the drug store at No. 291 Market street, swore out

a warrant for embezzlement December 3 against James W. Bandell, a former partner. Mr. Lees states that in July, 1880, he picked up Bandell and made him his bookkeeper, and that in December, 1891, he took Bandell into partnership. Lees says that his wife and friends kept warning him that Bandell was robbing him, but every time he asked for an explanation his partner showed the books, and not being an expert, Lees was unable to discover anything wrong. In October, 1893, Bandell secretly sold out his share in the drug store to one Benjamin Perkins. As the latter suited Lees, he entered no objection, and the firm is now Lees & Perkins. Bandell, after selling out his share, went into the real estate business with a man named Ferguson. Since his withdrawal from the drug store Lees has had the books examined by an expert, and finds a shortage of about \$3,000. Since the law does not allow a prosecution for embezzlement committed over three years back, Bandell is only charged with embezzling \$500 between January, 1891 and December 15, 1892, the time he was bookkeeper. No provision is made by the criminal law for the prosecution for embezzlement of one partner by another, and Lees will be obliged to recover the balance by civil action. Bandell has been arrested, and will be vigorously prosecuted.

John S. Moffitt, of the Moffitt-West Drug Co., was unanimously elected first vice-president of the Western Commercial Travelers' Association at the annual election held December 26 in this city.

The Alumni Association of the St. Louis College of Pharmacy, has made elaborate arrangements for the annual ball, to be given Saturday evening, January 20, at the College hall, Nineteenth and Lucas Place.

Dr. Eugene Van Ness, president of the Cooper Pharmacy Company, of St. Louis, has purchased the Kirkwood Leader, a well known suburban newspaper. The name of the paper will be changed to the Kirkwood American.

On Friday, January 12, bids were received by Supply Commissioner John Gilbert for supplying the Insane Asylum, Poor House, Female Hospital and City Hospital with drugs and medicines for the ensuing three months. The bidding was spirited.

The regular quarterly meeting of the Central District Medical Society of Missouri was held at Sedalia January 4. A large attendance was present. "Druggist vs. Doctor" was the title of an interesting paper submitted by Dr. C. M. Decker, of Knobnoster, Mo.

W. T. Harris, a young drug clerk of Bethalto, Ill., while on a visit to this city, met at a down-town resort a convivially-inclined damsel, who relieved him of \$250 in currency, a gold watch and a diamond. He reported the matter to the police. Two days after his employer, George A. Klein, called at police headquarters and wanted him arrested. He said he had sent young Harris to this city with \$100 to pay some bills, which he had failed to do. When Mr. Klein learned the story he withdrew the charge.

Dr. L. S. Stroll, druggist and postmaster at Granville, Ia., has been arrested by the United States postal officials, charged with embezzling postoffice funds and opening mail. The druggist's friends claim the case is instituted through malice.

CLEVELAND.

Cleveland, January 11.—E. A. Schellentrager and a coterie of friends, marshaled by "Brother" Chas. Schellentrager, the county auditor, all noted bon vivants, discussed the following holiday menu at E. A.'s Glenville Sans Souci:

Oysters.
(By St. Clair motor quick dispatch.)
Olives—Malaga. Celery—Glenville.
Bouillon—Bovox.
Champagne Pop Entree.
Glenville Yard Fowl Melee.
(Mrs. Schellentrager's Method.)
Vegetables—Self-raised.
Peppin—Cudahy.
Hasenpfeffer from Corporation Line Rabbits.
Mushrooms—Glenville Rooster Dumphill.
Sauces a la Leick-Mellor Imbrogio.
Eggnog—Carefully Compounded.
Tom and Jerry—Genuine Egg Coloring.
Cal's Breast—Stuffed with Egg Albumen.
Duroy & Haines Vintage.
Sandusky Bay Ducklets, Warranted.
Thuringer Lebkuchen—Jamaica Ginger Flavour.
Holland Cheese, Deodorized with Vermifuge Gelee.
Oranges, Bitter and Sweet.
Glenville Walnuts.
Almonds, Bitter and Sweet.
Glenville Cider,
Served with Two Antidotes.
Liqueur, for Medicinal Use Only.
Digestives, Select Cut-Rate Brands.
Coffee, Certified by Food Inspector.
Cigars, Nicotine-Cured.
Cigarettes, Cubes.

Cubec cigarettes are now in great demand.

Strong, Cobb & Co. find their Kilnol is proving a popular 50-cent article.

The homeopathic pharmacy in the Lenox building has removed to 333 Erie street.

The annexation of Brookline will add several desirable drug stores to Cleveland's list.

Ira M. Drake, a Mt. Vernon, O., druggist, has disappeared, leaving a destitute family.

The Buckeye Radical Rupture Co., of Columbus, has been incorporated with a capital of \$54,000.

Frank Dalrymple's pharmacy, in the Center block, Hicksville, O., was partially destroyed by fire December 30.

Ex-Chief of Police Schmitt has succumbed to an attack of pneumonia. He was the father of Carl P. Schmitt, a local druggist.

J. H. Guthrie, the well-known Conneaut druggist, is also a railroad ticket agent. When the cut-rate fever strikes there he will be right in it.

The case of a well-known patent medicine company against T. H. Goodsell & Co. is to be revived in the United States Circuit Court. Infringement on a tonic bitters is alleged, but denied by the defendants.

Geo. F. Klock, well-known among patent oil and drug men, will remove to Philadelphia in January to assume the management of Berry Bros.' branch office. He has been with the Murphy Vanish Co. for ten years.

Lewis Clark, general merchant and druggist of Brownhelm, was robbed of \$400 in cash and \$115 in township orders on the night of December 12. A night bell worker occupied his attention while an accomplice looted the house.

The name of the Homeopathic Hospital College has been legally changed to the Cleveland University of Medicine and Surgery.

Constance Grosvenor, eldest daughter of Congressman C. H. Grosvenor, was married to Wilson H. McKee, the druggist, at Athens, O., recently.

Aprons the registration of physicians, there is some little discussion of the question whether prescription druggists should be classed as doctors.

Governor McKinley will have to appoint a member to the Pharmacy Board by March 31 next, when the commission of John Weyer, of Hamilton, expires. "Lone Star Jack," a patent medicine vender of national notoriety, fell off a train near Girard, Pa., and was killed. He had relatives in Painesville, O., but claimed a home in Texas.

A. W. Bock, Ontario and Prospect streets, is local agent of the Wonderful Tint Manufacturing Co., of Rochester, N. Y., and is doing a handsome business in the wares of this concern.

Two men and two women visited H. H. Flandermeyer's pharmacy, at 492 St. Clair street, Sunday, December 31, and while the men made a trifling purchase the women lifted \$5 worth of perfumery. They escaped.

A great many druggists who were looking for a brisk holiday cigar trade laid in generous supplies, anticipating a general demand in the 25-in-a-box line. That they reckoned without their host the remnants show.

James Monroe, assistant of H. C. Wells, the Wellsville, O., druggist, and formerly in the employ of O. H. Dixon, of Pittsburg, and the Hires Root Beer Co., committed suicide with morphine. Motive, despondency and excesses.

The controversy between Health Officer Leick and Food Inspector Mellor has resulted in the former bringing charges of incompetency against the latter, which are now being investigated. Dr. Mellor for years kept a drug store on Broadway.

The following standing committees on pharmaceutical and medical societies and schools have been appointed: Senate—Morgrove, Hogg, Plum, Hardesty, Johnson, Earnhart and Hutsiniller. House—Reed, Schuler, Jones, Jacobs, Deaton, Carvin and Bayham.

E. F. Hull, secretary and treasurer of the Champion Chemical Company, Springfield, who recently disappeared, has returned and acknowledges overdrawing his account, but disclaims the shortage of \$5,000 to \$10,000 with which he is charged.

Crow & Whitmarsh are becoming quite personal in their advertisements since the C. P. A. cut-rate schedule went into effect, which is taken as evidence that competition has hurt. They refer to the druggists as sleepers, and wish them an eternal slumber.

At the last meeting of the C. P. A. the following officers were elected for the current year: Thomas Sords, president; D. E. Steuer, first-vice-president; Philip Lehr, second-vice-president; Carl Krebs, secretary; Edward Strong, treasurer. The committees will be appointed at the next meeting.

The master house painters and decorators elected the following officers for 1894: Wm. Downie, president; James Hayr, vice-president; L. W. Weber, treasurer; W. A. De Vries, secretary. Downie, De Vries and S. Towser were chosen

delegates to the national gathering at Baltimore next month.

The Alliance Paint Co., Alliance, O., capital stock \$50,000, was incorporated by John Y. Williams, G. W. Henry, A. L. McDonald, Josse S. Bird and John Thomas.

The spring-like weather, December 23, 24 and 25, started a lively demand for soda drinks, the shoppers fairly flocking into the downtown drug stores. The fountains were generally dry, however. Primitive dispensing methods were resorted to where presence of mind prevailed.

A suit has been filed against the Grassell Chemical Co. by residents in the vicinity of its factories, charging that vapors arising from the manufacture of nitric, sulphuric and other acids, sulphate of soda and sulphate of copper have ruined the vegetation and are detrimental to health. Injunction and damages are prayed for.

The big Detroit and Toledo drug fires aroused general sympathy among the local trade and assistance was generously offered. The destruction of West & Traux's five-story building was complete, entailing a loss of \$35,000 on the building and on the stock, with but partial insurance. The stock of I. N. Reed, the retailer, was also completely destroyed by water and smoke.

A casual remark by Daniel Myers concerning the drug schedule of the Wilson bill at the last session of the C. P. A., led to a general discussion of the objectionable features, but many of the members not being conversant with the schedule as amended, a committee was appointed to peruse the bill and report all changes which might prove cumbersome. These will then be embodied in a formal petition and forwarded to the congressmen of the district.

Cleveland produces more paint material, red and otherwise, than any other city in the United States, and ranks about fourth in the manufacture of varnishes. The trade express the opinion that the Wilson tariff bill in its present form will not noticeably affect the paint business, except as acting indirectly upon the industries in the way of placing smaller orders. So far as foreign competition with the manufactured product is concerned no effect is anticipated.

E. A. Schellentrager is again to the fore with a new enterprise. This time he appears upon the records as the purchaser of Fred Emde's pharmacy, corner Superior street and East Madison avenue. Mr. Emde, being otherwise engaged, his drug business lacked the necessary attention to make it the success which the location alone would reasonably insure. The business will be conducted under the name of Schellentrager & Hoehn, and an efficient assistant has been placed in charge of it. Everything will be overhauled until it reaches Mr. Schellentrager's standard.

One of the promised "reform" bills has been introduced in the legislature by McBride. It requires that the state shall be required to furnish proof of guilt in all prosecutions for violation of the pure drug and food law, thus repealing the section of the present law which makes guilty knowledge presumptive in case a dealer is found to be handling impure drugs or food. State Food Commissioner McNeal ridicules the bill in that it will make a conviction impossible, and asks

Meltride for something more tangible than a burlesque effort if he wish to earn his assistance rather than his opposition.

City Chemist Joseph Mellor has been removed from office, the charges of incompetency against him having been sustained. The qualitative and quantitative analysis of a sample of water and flour required over a week, and the result was so unsatisfactory that "Doc" Mellor was peremptorily invited to henceforth affix an "ex" to his title of city chemist. In the water, which had been doctored with arsenic and tin, Mellor failed to find either, discovering "zinc" in their place. Louis A. Dryfoos, a well-known analytical chemist, was offered the place, but he declined, owing to the salary being but \$1,000 per year. It is probable that chemist Schlewind will be appointed.

HOW THEY SPENT THE HOLIDAYS IN CLEVELAND.

AJ Peterslidge—Priding himself on being the only person of this name in town.
Carl Schmitt—Praying for Brooklyn's annexation to Cleveland.

Edo. Claassen—Inquiring into the merits of the Mellor-Leick chemical essays.

Billy Horsch—Wondering why that wag did not send the razor-back hog to Stecher Bros., the barber druggists.

Franz Kelper—Getting his pharmaceutical journals ready for the bookbinder.

E. A. Schellentrager—Adding to the comforts of his luxurious (Henville home).
"Jim" Bruce—Celebrating the fact that he was born lucky.

Ludwig Kelper—Associating in his mind with the deutsch-laendische wohnachtsrueder.

J. A. Bartlett—Calling hello over line A.
Henry Bechberger—Guessing what the C. P. A. will be doing next.

"Triple Alliance" Benfield—Making the rounds of his three pharmacies.

Wm. Bodebender—Inventing burglar-proof plate glass.

S. P. Churchill—Wondering whether friendship is worth seeking.

L. Dreher—Testing his conversational powers with the avenue belles.

Theo. Claus—Holding his customers spellbound with his characteristic ear whisper.

Jim Ferguson—Pointing out the beauties of Wade Park's panorama.

"American House" George—Consoling the homeless traveling men.

G. L. Hechler—Plausibly calculating the relation of ice sports to artificial limbs.

K. P. Humiston—Laying out plans for vaccine farming.

R. Parsons—Reaping a harvest of catarrh cure shekels.

W. F. Steadman—Still rejoicing over the advent of St. Clair street motor cars.

O. R. Goodyear—Weighing the advisability of changing his name to suit the times.

W. H. Flood—Turning over a new leaf in some humorous paper.

J. H. Silberling—Denying any ancestral connection with the Judas coin.

F. L. Gegelein—Disapproving of a cut-rate style in holiday feasting.

C. Krebs—Gathering courage for '94.
John Krause—Forecasting probabilities.

J. J. Riegelhaupt—Filling his own prescriptions.

C. W. Smith—Contemplating the complicated life of a suburban druggist.

J. S. Wood—Missing connections with the Collingwood Interurban.

BUFFALO.

Buffalo, January 11.—The drug trade is fully good, much to the wonder of most of the dealers. Most of them report a larger holiday business than ever before, and all appear to have done much better than they expected, that is to say, well. The explanation of this is that the holiday gift habit has become so firmly fixed that it cannot be broken off, even with short purses to meet it, and so the buying was confined to inexpensive articles. The druggists have of late been so cut under by the dry goods stores that they have put in very little holiday stuff that was expensive, so sales were lively. There is no special demand for any particular goods. Hot soda sells more freely than ever before, and the trade is in quite fair shape, considering the times. Wholesale report a very brisk trade.

Foster, Milburn & Co., who rent and occupy in part the Berick building, at Swan and Elliott streets, have a problem before them in the shape of a condemnation of the block by the factory inspector, who claims that the floors are shaky and that there are not enough fire escapes. Steps will be taken at once to make good the defects. This company, long prominent for the manufacture of Burdock Blood Bitters, has about forty employees in the building. The hard times have struck such concerns to the tune of 30 or 40 per cent, as other proprietary establishments besides this one acknowledge, but all have retrenched considerably, especially in advertising. The theory is that people have not the money to buy medicine with, so neither advertising nor any other means will bring it. Well-to-do people at such times shorten purchases of medicine and poor people go to the free dispensaries.

There is a diversion in the line of cut-rate dealing. Boston sends out a dispatch stating that manufacturers and wholesalers were trying to shut off not only the cut-rate dealers, but also those who are substituting their own preparations for the regular patent medicines, which latter practice is always reckoned a crime by manufacturers. The Buffalo retailers deny that they are cutting rates, and most of them are in an organization having a forfeit pledging them to maintain rates. The fact that the pharmaceutical association has not met in a long time is evidence that there is no great disturbance in the trade, such as general cutting would produce, for the association exists mainly for the purpose of looking after such matters.

The Buffalo retailers have, to some extent, gone into the coupon business, after the fashion of the soapmakers, giving out a ticket with every purchase of a dollar, which, with other tickets, calls for some article supposed to be valuable to the customer. An effort has been made to stop this practice, which really amounts to cutting rates, and it has already partly succeeded. A certain cyclopedia company has twenty-three druggists on its list.

The old Arcade building, which burned down last month, did not contain a drug store, though it did contain about everything else. The Hart Rheumatic Company, which was located on the second floor, was completely burned out. It had a large stock of medicine, advertising matter and other goods on hand, and estimates the loss at fully \$5,000, which is not covered by any insurance.

The Erie County Board of Pharmacy

granted six licenses at its second December meeting, Jacob P. Billett, Charles T. Bischof, John Levinson and Valentine E. Euler receiving full pharmacists' papers, and Alf. E. Cavers and Fred C. Kelley receiving assistants' licenses. Mr. Bischof is a graduate of the New York College of Pharmacy and Mr. Levinson came from New York. Mr. Cavers came from Canada, Mr. Billett from Tonawanda. Mr. Kelley is with Dr. Ray W. Pierce and Mr. Euler is at Tilma's drug store.

There is considerable complaint among local druggists of the way Carlsbad salts are manipulated by the manufacturers or their New York agents. So many times has the price been put up that it is now almost out of the reach of the retail trade. One dealer who bought a quantity some years ago has most of it on hand, and is asking other druggists to help him out. The result of the high price is that substitutes have been put on the market by one and another, and this is the reason why the Carlsbad remains on hand.

Some small boys learned a few days ago that naphtha is explosive, even if it is a mere residue in a barrel supposed to be empty. The barrel was standing in front of the Buffalo Refining Co.'s office on lower Main street, and these urchins amused themselves for a while by throwing lighted matches into the bung-hole. After considerable maneuvering in this way the gas in the barrel exploded, wrecking the barrel and waking up the neighborhood. Had the boys stood at the end instead of the side of the barrel they would have been killed, as the heads were blown some distance.

Among the few new articles in the drug trade is the Norwich Pharmacal Co.'s (New York) Unguentine, an ointment base, which is well received by the dealers.

Dambach & Co., who have a drug store at Main and Chippewa streets and another on Seneca street, have lately been resolved into W. C. Dambach, Dr. Lothering retiring.

J. P. Billett, of Stanley & Billett, druggists of Tonawanda, has bought out the drug store of William Coleman on Connecticut street. Mr. Stanley will continue the Tonawanda store alone.

R. K. Smither, the druggist-alderman, is president of the board this year, a place for which his character and experience well fit him. He was for some years at the head of the Board of Supervisors.

The drug store of Edward A. Kingston, at Main and Ferry streets, was burglarized a few nights ago by what proved to be a former employe, who carried off a lot of cigars and a small amount of money.

The pharmacy college students are back from vacation, getting ready for the mid-season examination, which now, by a most acceptable change of time, comes just after a chance is given for review and general preparation.

Fred A. Darrin, a bright pharmacist, who left the business last year to try a hand at the baking profession, has given up the venture and is doing relief work in drug stores. He is preparing to go into the ice cream trade in the spring.

H. W. Wagner, formerly of Chicago, will open a fine new store at 313 William street. The fixtures are in white and gold, supplied by Buffalo parties. The shelf-ware and show bottles come from Whittall, Tatum & Co., and Plimpton, Cowan

& Co., of this city, contribute the stock of sundries, etc.

W. H. Chase, who has drug stores on Forest avenue and at the corner of Ferry and Grant streets, has opened an elegant new one at No. 226 Main street, in the new Parkside district. It is said that there are very few finer ones in the whole city of Buffalo.

The smuggling industry is quiet at present. Dealers know this from the fact that there are no nondescript people blowing in with opium, antipyrine, phenacetine and similar expensive but unidentifiable articles to sell at cut rates. At certain seasons of the year these people are quite numerous.

A number of pharmacy college men, including Profs. Hill, Gregory, Long and Gray, besides several graduates, are preparing to buy a summer lodge in the Adirondacks. Prof. Hill went to his old home at Watertown during the holidays and looked out a location on Horseshoe Pond, ten miles from Tupper Lake, which has a hotel. There is also a railroad station and boarding house across the pond, but of easy approach to it only across the pond. From 5 to 100 acres of land will be bought, according to price, and a lodge will be built suitable for occupation by women and children, and a point from which parties can go on fishing and hunting trips of one or more days in length. This region has always been a great favorite with the Buffalo University men, so much so that a number of them gave up the World's Fair for it.

Dr. Frank P. Vandenberg, the analytical chemist, has been engaged in some very interesting work lately in connection with the adjustment of claims against the city of Syracuse in its efforts to secure a water supply from Skaneateles Lake. There are about forty mills on the outlet of the lake, all of which must be bought up before any water can be taken. Dr. Vandenberg was retained by the Glenside Woolen Mill, which gets water for dyeing purposes from a spring some distance from the outlet. The mill made claims for the spring, but the city declared that it was not dependent on the outlet as its source. Dr. Vandenberg took steps to prove the matter by throwing into the outlet a quantity of the chloride of lithium, and in eight hours he found lithium in the spring. Having tested both the outlet and the spring for lithium previous to the use of it, the experiment was apparently successful, but, to furnish a second proof, the doctor threw into the outlet ten pounds of fluoresceine, and the peculiar greenish tint given water by the dispersion of light produced by this drug was soon very apparent in the water.

These drugs are so scarce that almost the whole supply of the country had to be used. Only the carbonate of lithium could be found even in New York, the doctor himself converting it into the chloride. His purchase of twenty-five pounds so exhausted the supply that the price was at once advanced, and the Buffalo users of lithium were soon besetting the doctor to learn what had happened. Syracuse was to get the Skaneateles water for about \$2,500,000, according to the estimate, but the cost is already \$12,000,000, with no indication of the end of the expense. Dr. Vandenberg's legal difficulties with Charles Platt, his late partner, have been settled, and he is back at his laboratory again.

LOUISVILLE.

Louisville, January 11.—The expectation of legislation on the part of Congress has led most of the local distillers to resume operations. The whiskey men seem anxious to get on hand as big a supply as possible before any new provisions should become operative. The new legislation would of course not have a retroactive effect and the liquor dealers would be ahead just that much. Among the distillers which have already started are the Old Times, Mellwood, Fern Cliff, Crystal Springs, Rosenfield Bros Co., John G. Roach & Co., Rugby Distilling Company and the J. G. Mattingly Company. Thousands of workmen have been given employment by the resumption. As to the question of an increased tax, the whiskey men here are divided. Some think it will be greatly beneficial to the trade, while others cannot see it that way and insist that it is the very worst thing that could happen. Some think that while an increase in the tax may prove of temporary benefit, it will result in loss in the long run owing to the decreased consumption. Of course in these views, the extended bonded period is taken into consideration.

The following call has been sent out by Secretary Frick, of the Interstate Retail Druggists' League:

"The crisis is over and the Interstate Retail Druggists' League, having a remedy in the Detroit plan, will endeavor with the co-operation of the retail druggists of the United States to put this plan in force. You all are no doubt familiar with this plan, which was adopted at Detroit at the meeting of the N. W. D. A., and it is upon this plan, we hope to accomplish our object. The work done during the past few months has been very successful in many localities in the East, and it is this success which has prevailed on the officers of the league to call a special meeting of this body in New York City on Tuesday, February 6, 1894, at Ionic Room, Terrace Garden, 149 East Fifty-eighth street, at 10 o'clock a. m. By reading the president's address you will more fully understand what is desired to be accomplished at this meeting. Before the league was organized a few years ago at St. Louis, the retail trade in many sections was in a demoralized condition. The few states represented at St. Louis were taken with a whim and in the course of eighteen months had over twenty different states interested in our work. Up to that time the jobbers and manufacturers thought it useless to listen to the retailer's plea. But look back at their meetings and you will notice the interest the retailers have awakened in them. They have shown their good will by offering a plan whereby we can eventually accomplish our object. But it needs the hearty co-operation of all the druggists of the United States. Therefore we kindly urge you to bring this matter before your local associations and urge them to send representatives to this meeting, or if not able to be present in person, have them take action on the matter and send the report to the meeting. We are in a position now to be able to accomplish some good and we need your assistance. For further information address the secretary of the league. For hotel accommodations and other matters concerning the meeting, address state executives of New York, Mr. V. Kostka, No. 700 Ninth avenue, New York City."

This is a matter in which the league is deeply interested and it is expected that the meeting will be marked by a large attendance.

The Botanical Club has effected a satisfactory compromise with the dry goods houses of the city. The houses agree not to handle any article of medicinal value such as vaseline, ammonia, camphor, etc. They will, however, continue to sell toilet articles. For some

time there was a good outlook for a merry war between the retailers and the dry goods merchants. Most of the drug men are eminently satisfied with the new arrangement. It is fortunate that the concession was obtained, as of late the dry goods houses have been making inroads on the drug trade in certain of its departments. The next meeting of the Botanical Club will be the one for election of officers. At the last meeting there was a veritable flood of eloquence and it is promised that this will continue at the next meeting also. The club is now in a prosperous condition and it has begun the new year with every assurance of greater prosperity than ever. Every druggist in the city, with but one or two exceptions, is a member.

Druggists report that collections with the opening of the year do not show much improvement and trade is about in the same condition. Of course this result is naturally looked for just after the holidays and will hardly give place to livelier times for a month or so yet. The extremely warm temperature here recently has also had a bad effect on the prescription business for the past two or three weeks. Christmas Day in Louisville was almost as balmy and pleasant as a day in June.

Mr. Addison Dimmitt, a brilliant young pharmacist, has been notified that he is the winner of the first prize for an essay on substitution. The prize was offered by the New York College of Pharmacy in a national contest. Mr. Dimmitt has previously taken the prize given by the Kentucky Pharmaceutical Association on this subject.

INDIANAPOLIS.

Indianapolis, January 11.—In a suit brought at Terre Haute by an anti-vaccinationist to restrain a teacher from excluding his son from school because he had not been vaccinated, the County Court has decreed that, under the present rules of the State Board of Health, the local board has no power to compel a healthy child, not exposed to small-pox, to be vaccinated or to quit school. The court expressed no opinion on the power of a Board of Health of a city or state or of the Legislature in a similar case.

The Supreme Court has granted a rehearing in the case of the State vs. Parker and McAfee, the colored youths charged with the murder of druggist Eyster, on account of alleged irregularities in the former trial. The court says the testimony of Mrs. Eyster: "My husband said to me when I got to 'him, my God, those colored boys who were in here have killed me" should not have been admitted, not being part of the res gesta. Under the original judgment the boys would have been hanged on the 7th inst.

A Lawrenceburg druggist is charged with carelessness that threatens to cause the loss of eyesight to a minister in a neighboring town. The latter was given a big quantity of quinine without a proper label and the minister's wife used it instead of the proper drug. Her husband soon lost both sight and hearing, but rallied and is now suffering but the one affliction, blindness.

Winfield Scott Lynn, for nearly a quarter of a century a fixture in the Browning drug store, of this city, seems to be in imminent peril of becoming suddenly rich. Mr. Lynn's mother was a granddaughter of Isaac Williams, who figured

conspicuously in the romantic marriage of the daughter of Lord Townley, of England, a little over a century ago. Lord Townley died in 1791, leaving an immense estate which has not yet been distributed to his heirs. The Chicago Herald says that interests of the heirs of Lord Townley are now in the hands of a competent English lawyer, with almost a certainty of an early distribution of a fabulous sum, which has been over a century in the Bank of England, awaiting proper claimants. It is difficult to say what Mr. Lynn's share will be. It cannot be less than \$100,000, and it may be \$500,000 or more, depending, of course, upon the number of heirs who may be able to prove their title to a share. Mr. Lynn is not overconfident, however, of getting any portion of the estate, because, when such an estate lies unclaimed in England for thirty years, it cheats to the crown.

There are 7,291 members in the Indiana Traveling Men's Association.

William E. Lee, shipping clerk at A. Klefer & Co., died on the 4th inst.

Lou Plogsterth, of Riggs & Plogsterth, druggists of Marion, spent the holidays with his mother in this city.

Dr. H. Lindley, of H. Lindley & Sons, druggists, Bloomington, Ind., was one whose recent death is much mourned by brother druggists.

Frank Best, formerly in business at Ninth street and College avenue, this city, has purchased the store of A. A. Wells, Lafayette.

Frank Leese, Danville, Ill., has taken a position with A. Klefer & Co., representing the firm's clear interests in Billions and Western Indiana.

Fire at Red Key on the 2nd inst. destroyed seven business houses and three dwellings, among them being the drug store of Charles Walker, whose loss was \$5,000, insured for \$2,000.

Chas. L. Kackson, for several months prescription clerk with Henry Gante, Anderson, Ind., skipped town recently, leaving numerous bills, which he forgot to cancel. He was a skilled telegraph operator, and it is thought that he is at work on some railroad.

The wholesalers report trade opening briskly for '94, and they infer that the retailers must be doing correspondingly well. The general tone is hopeful, and the feeling is that the new year will not experience the pinch that has been the chief characteristic of '93.

Dr. E. A. Guy, once of the Ohio drug store of Valparaiso, this state, and who gained notoriety by swindling wealthy widows, has been arrested, tried on the charge of stealing \$250 from Mrs. Emma Spangenburg, of Galena, and in default of bail put in jail at Berrien Springs.

S. H. Eustis, Shelbyville, has recovered from the effects of the fire that for awhile stopped the wheels of business, and he is now pacing along in old style.

Campbell & Kersey are the successors of G. J. Rhorer, Darlington, Ind. Mr. Rhorer was forced from the business by ill health.

G. H. Cane's drug store at Knightsville was visited by burglars on the night of the 3rd inst. The safe was intact, but showed signs that it had been tampered with, and a can of powder lay suspiciously near it. The more valuable and portable articles in the store were taken by the plunderers, who were evidently

disturbed before they were through with their intended visit.

Councilman Colter, who is foremost in the fight to make drug stores take out a city license for the sale of liquor, is authoritatively for the statement that the government receives more revenue from Hendricks County than from any other county in the state. There are no saloons in Hendricks County and liquors are dispensed from drug (?) stores.

Three or four years ago Capt. Hardy, of Loganport, joined the combine known as the National Lined Oil Company, taking his pay in stock for his mill. Last week the trust sent a Detroit man to supersede him as manager, but he refused to surrender possession and appealed to the authorities for protection. He says the trust is trying to ruin his business.

Several men of this city, who use alcohol in their business, were remarking to each other casually that their stock-in-hand appeared to disappear much more quickly now than formerly. A book-binder confessed that he knew not how to stop the petty pilfering of his employes, a foundryman suggested doctoring it with gum shellac, but a druggist informed them that a small quantity of aloes might save the alcohol, while not injuring it for mechanical purposes.

Henry J. Huder began the new year by opening his new drug store at Washington and Pennsylvania streets, the two most prominent thoroughfares in this city. He occupies the room that was formerly tenanted by the Indianapolis National Bank, and he has fitted it up in a style not surpassed for elegance by any drug store in the city. Mr. Huder was an unqualified success as a druggist during the years that he shared work and profit with Mr. Pomeroy, and his prosperity promises to continue and increase now that he is "going it alone."

The metric system has been adopted by many of the druggists of this state since the receipt of the Pharmacopoeia.

Dr. Hammond, one of the three members of the Board of Health of this city, complains of the high-priced drugs that are bought for the city dispensary. He says also that, in order to cut down the expenses of the dispensary, a man was put in to make the tinctures and fluid extracts, but the bills are still coming in for these drugs, and the dispensary superintendent reports that he can buy them cheaper at wholesale than he can make them.

The one Indianapolis cutter is still a fly pestering the bald heads of the legitimates. Some excitement was created at the last meeting of the local association by the expression of some of the druggists that he ought either to be brought promptly into the ranks or be suppressed by a grand assault of price-cutting by all hands. Others advocated the establishment of another cutter alongside of him to do him up as David did Goliath and return in triumph to the association army. Wiser counsel prevailed and it was decided that, as he was hurting no one in particular and all very little in general, it would be well to let him fall naturally and freely into a state of complete and innocuous desuetude.

The Boehme Drug Company, Superior, Wis., has temporarily suspended. The business may be carried on by the assignee.

ATLANTA, GA.

Atlanta, Ga., January 11.—Business in this section is still without any marked signs of improvement. The holiday trade was not what was expected, it being the dullest in many years. Prescription trade is actually dead.

The people of Atlanta are now beginning to boom the "Cotton States and Pan-American Exposition," to be held here in the fall of 1895.

Harvey & Harvey, druggists, Valdosta, Ga., sustained a small loss by fire on December 24. Covered by insurance.

Dr. Geo. F. Payne, Georgia's state chemist, was recently elected to an honorary fellowship in the London Chemical Society.

At a large fire in Dublin, Ga., Tarpley & Kellam's drug store was totally destroyed. They were insured for \$2,500 on a \$4,000 stock.

Dr. Wise, druggist in the employ of Whitehead & McMaster, Waynesboro, Ga., attempted suicide by shooting himself twice in the breast. He is dangerously shot, and not expected to live.

On Sunday night, December 24, the window in Abernathy's drug store on Decatur street was broken into and some fireworks stolen. The thief was captured as he was crawling out of the window.

On the morning of December 27 the Leonard & Ellis oil and paint works, Birmingham, Ala., were consumed by fire, with \$7,000 worth of stock. The loss, which exceeds \$18,000, was covered by insurance.

Several of the druggists of Atlanta have a novel and quick method for delivering their packages by means of bicycles. Those who do not own vehicles of this kind patronize the Bicycle Messenger Service Co., who deliver packages for seven and a half cents each.

The Southern Perfumery Co., of this city, has been organized with a paid up capital stock of \$25,000. The officers are: J. H. Porter, president; J. F. Renfro, manager; Edgar Bridger, secretary, and E. L. Bergstrom, chemist. The company intends, at an early day, to manufacture toilet soaps, and also to extend their territory further west.

The evening of December 30 the employees of the order department of the Lamar & Rankin Drug Co. were tendered a banquet by Mr. D. R. Stauffacher, who was formerly at the head of this department. Covers were laid for twelve guests, and the supper was an elegant one. Several toasts were drunk to the host, and J. D. Lee responded to "Our Host" in a very happy manner. J. L. Sutton spoke of "Pleasant Days, Past and Present." The evening was a most enjoyable one.

The druggists of South Carolina have a very hard time of it in securing their alcohol. They must buy it from the county dispensary, where they pay a little more than actual cost and 10 per cent profit for liquors. They are compelled to keep and file with the county board of control a sworn statement of the uses to which the alcohol is to be put, and should they dispose of it in any other way, they are liable to all the penalties provided for violators of the law, and shall also forfeit their licenses as pharmacists.

Witmer's drug store, Dubuque, Ia., was burglarized recently. Quite a sum of money was secured by the burglars.

BOARDS OF PHARMACY.

Alabama Board of Pharmacy will meet in Montgomery, January 25th, 1894.

Massachusetts Board of Pharmacy held sessions December 19, 21 and 22, and examined forty-four applicants. The following were the successful candidates: A. B. Kelley, John Parr, Lawrence; F. H. Holt, D. W. Rintel, W. H. Standard, J. A. Munkley, Boston; G. F. Butler, Watertown; A. C. Wagner, Everett; H. E. Brier, Cottage City; H. E. Bowman, Somerville; E. S. Blumenkranz, Newport, R. I.; W. H. Wallace, Belmont; Claude Curtis, Rockport; W. H. Davis, Fall River; E. D. Hatch, Melrose; Howard W. Nowell, Merrimac.

The Ontario College of Pharmacy at its forty-sixth semi-annual examination, held December 20th, 1893, announces the following successful candidates in the various grades: Passed in order of merit—Walter B. Scott, Port Hope; C. A. Buchanan, Kemptville; Geo. C. Park, Chatham; Thos. Rowland, Toronto; Wm. H. Rutledge, Creemore. Roiph, T. Shepherd, Stayner. Passed in subjects now and on previous occasions—Dugald Campbell, Atwood; Harry W. Love, Toronto; Alex Ray, Belleville; Colin McIntyre, St. Thomas; Arthur S. Hopkins, Toronto; H. F. Gordon, Woodstock. Candidates who succeeded in taking four subjects—John Gordan, Woodstock. Candidate who succeeded in taking one subject now and four on previous occasions—Leon Albert Goodacre, London; Jas. M. A. Waugh, Wallaceburg.

The American Chemical Society held its annual meeting at Johns Hopkins University, Baltimore, December 27 and 28. President D. C. Gillman, of the university, made the address of welcome, and H. W. Wiley, president of the society, replied. The society has four local sections—in New York, Newport, R. I., Cincinnati and Washington, and a membership of about 600. A number of valuable papers were read and discussed. At the business session the advisability of getting a national charter for the society was discussed, as it is at present a national organization working under a charter of the State of New York. This causes a double set of governing bodies, a board of four directors, comprising residents of New York, and a national council of equal membership. The report of a special committee advising the society to secure a charter from the national government was read and referred to the council for action. Before adjourning, the following officers were elected for the ensuing year: President, H. W. Wiley, Washington; general secretary, Albert C. Hale, Brooklyn; treasurer, C. F. McKenna, New York; librarian, C. E. Dodge, New York. Council, C. B. Dudley, Altoona, Pa.; C. E. Monroe, Columbian University; William McCormurtrie, New York; J. H. Appleton, Providence, R. I. Directors, C. F. Chandler, P. T. Ansten, C. A. Doremus and M. Carrington Bolton. The time and place for the next meeting will be determined by the council of the society.

Three druggists recently paid \$49.75 each in a Kansas City, Mo., court for selling liquor without a license. One of the druggists is credited with saying that he was glad he was fined, as he could now refuse to sell any more liquors and thought the business should be stopped.

CORRESPONDENCE.

We accept no responsibility for the views and utterances of our correspondents. Contributions must carry full name and address of the writers, which, however, will not be published, if so requested. Copy should reach us ten days in advance of date of issue.

THEY ARE NOT CUTTERS.

To the Editor:

I beg to inform you that here in Worcester there has existed a Pharmacists' Association for nine months. Messrs. P. B. Moriarty & Co. and W. M. Maynard are good and loyal members and should be removed from the list of cutters (Era, January 1). The uniform price adopted by the association is 20 per cent from list price. If you should have occasion to print a list again please drop those names.

Respectfully,

W. S. DOANE,
On Executive Committee.
Worcester, Mass., January 9, 1894.

LONDON LETTER.

One thousand eight hundred and ninety-three has ceased to exist. It has been full of memorable experiences to the druggist, and that for many reasons, and while there have been the usual glimpses of the silver lining which it is said accompanies every cloud, no matter how black and dismal the side nearest the earth may seem, all has not been exactly as most of the mercantile community could have wished. But this is a state of affairs which has obtained since the world began, and it therefore behoves all enterprising merchants to get out of the well-trodden path which has been made by successive generations, and track out something new and better for themselves, as there is no reason why the present generation should follow the antiquated methods of those who have gone before, except, perhaps, in those features respecting integrity and thoroughness, for which many of our ancestors have been noted.

To bring about a state of matters which will benefit the great mass of retail druggists, and also those in other branches of commerce, it would seem that it is absolutely necessary to bring the inventive faculties into requisition, and employ them in a new line, as any suggestions which have been made up till now have been lacking the feature of practical workability. Much correspondence has been going on in some of the better known journals as to the best means to encourage sociability in small communities, and some of the plans would perhaps admit of being adapted to the needs of the drug trade as there should be undoubtedly more intercourse between the members thereof than there is at present. This of course alludes to the condition of affairs in this country, and may not appertain to those of other lands. In any case, however, it never does any harm to endeavor to improve matters, and the time has arrived when all members of any one trade should act in unison, and abolish the cut-throat policy which has now obtained for a very long period. The difficulty lies in the old complaint—the profession contains more assistants than there is need for, and when one of these is dispensed with as a consequence of the bad times, there are too many wholesale houses who are willing to start the youth on his account, the usual method being to have a mort-

take on the goods supplied, which includes fixtures as well as the stock of saleable goods.

This is a question which has agitated the minds of a great many of the druggists who take an interest in the welfare of the younger members of the trade, but the difficulty appears to be as far from being solved as ever it was. Emigration is often regarded as a safe means of remedying the evil, but those who speak of this as a way out of the problem, speak unadvisedly, as there are continually reaching these islands reports of non-success in the parts of the globe which are thought to be the best places to make a good living.

One effective way of deterring many a young man from entering on his career as a druggist is the ever-increasing severity of the examinations set forth by the Pharmaceutical Society, and the profession is also supplied with a better class of assistants, as those who pull through nowadays, must be made of the proper stuff, and are well able to make up the prescriptions of their allies—the doctors. As regards the latter profession, it would be a good thing if the powers that be would make the exam. papers for the materia medica a little stiffer, as a good many seem to be strangely at sea at times respecting this subject. It is bound to come.

The entire mercantile community throughout Great Britain has been more or less disturbed in the operation of their respective businesses on account of various causes, but chiefly in consequence of strikes, which apparently result in no good to anybody—at any rate this is the general feeling here. Much suffering has resulted, and a large number of deserving people have been thrown out of employment as an indirect effect of those who thought to better their own positions. They have not done so, but on the contrary, they have contributed in a great degree to the discomfort of many others. At times during the great coal strikes, manufacturing chemists were at their wits' end to know how to fill orders which were urgently required, and a long list of inconveniences could be recounted on this score. Expenses of working have been increased, and while profits have not participated in an increase the general expenditure of maintaining the store in a decent manner has gone up. The peculiarity of these affairs is, that when they once rise, they never come down again. So, within the past five years, disbursements in the ordinary routine of business have multiplied in an alarming manner, without a corresponding augmentation of the receipts. This is a mystery which ought to be looked into, and, if possible, rectified.

The defunct year has witnessed the adoption of many new business methods—good, and otherwise—and our forefathers would be shocked at the idea of consigning several time-honored systems to oblivion, although it would not be assuming too much to suppose that at some time or other in the far distant future, the same will be resurrected, and shot upon our descendants as "something new." On the whole, however, no good thing is abolished without some adequate cause, and there can be no doubt that there are many things which will stand a good deal of revising, if not total obliteration.

The receipts both as regards the retail and wholesale sections of the drug business, have been much less than former years,

and when it is borne in mind that some factories were stopped altogether for a time for lack of coals, it will be readily seen that nothing else could have been looked for. The retail suffered as there was a dearth of money in circulation, and the majority of retailers preferred not to do the business, than to risk the probability of a large contingent of bad debts; it is reported from two or three quarters, however, that those who gave practically unlimited credit, did a good thing for themselves in the way of advertising, besides getting quit of a good deal of stock which they could not have disposed of at ordinary times.

Notwithstanding the good fortune of a few, most people in business think that the best system is to keep clear of all risks, and rather keep their hard earned cash in a safe than shovel out goods which have to be paid for. There are times when the proportion of risk to the amount of profit to be obtained, appears to be very large, and on the occasions alluded to, those who staked a little have come out on the right side. When this may happen once, it is always highly probable that things will not come out as anticipated, and, therefore no blame can be attached to those who prefer prudence to any species of speculation.

The holiday season has this year made up for a good deal of the bad times, and sales have been quite satisfactory. There has been unlimited choice so that there was very little exertion required to make sales, and this is exceptionally lucky, as it so happens in many cases that the prescription departments have required a good deal of attention, and as this is the chief object of the druggists' life, it would never do to allow matters in this direction to fall behind.

The departed year has seen what is believed to be the last of some of the more objectionable cutting concerns, and their demise will not raise up any feelings of regret in any quarter. It is a source of immense satisfaction to the drug trade to see this system of dealing being relegated to the past, where it ought to have been long since. It yet remains with those interested to subdue the illegitimate sales of registered poisons which are still going on in many places quite openly, and that this acts prejudicially to the druggists is beyond question, while the peril to which the public is subjected is not slight, many deaths taking place from time to time as a result of improper handling of dangerous substances.

The recent prosecutions have had the effect of lessening the desire on the part of traders other than druggists, to deal in this class of commodity, as there are few people who wittingly lay themselves open to being fined, and it is noticeable that the penalties which are being inflicted are ever on the increase, so that in the near future, the cases will be fewer in number. This is a good thing for the retail trade, and should help it considerably.

It is a matter to be regretted that the wholesale trade are in no wise protected as the laws governing the wholesale sales of poisons are quite inadequate for the responsibility which rests on those dealing in such articles. Repeated attempts have been made to effect this but there is some reason which is not known to outsiders which prevents the passage of bills to remedy this state of affairs. Sooner or later, however, there will have to be something done to set these matters right, and

thereby afford means of protection to the public as well as those of the mercantile community who are interested.

The balancing of the books is at this season of the year a rather formidable occupation, and it is to be feared that things will not look over bright, as the sundry hindrances to commerce during the year which has just closed must have made themselves felt in various ways. A great many of the firms which have for a long time been considered unsafe to deal with have accumulated to the bad times, so that the constant watching of their accounts will save some trouble, and also anxiety, which was not worth the trouble, considering the small margin to be got out of this sort of customer.

The new introductions which first saw the light during 1893 have been fairly numerous, and withal good value both to those who have to retail them and also to the public, and, as it is the latter who make the access or otherwise of any article, their opinion ought to be secured in some way before flooding the markets with something which will not sell or which might bring discredit on the manufacturers and the retailers. The number of shoddy articles is, however, on the decrease and it is a matter of congratulation to all concerned, as many customers are lost, through a retail druggist unwittingly supplying goods which are not what they are represented to be in public advertisements, and elsewhere. A goodly number of proprietary articles have seen their last through being puffed injudiciously, and claiming virtues which were not a component part of their manufacture. The market is gradually being cleared out of much trash, and where such goods are now being sold is a question which no one seems to be able to answer, but no doubt, the whereabouts could be ascertained if any took the interest and the trouble to make the necessary inquiries, but the subject is not important enough to render the taking of any trouble worth while. That the goods continue to be made and sold is quite certain, as occasionally one hears of them either from a traveling man or a price list. They are about played out, however, and as a consequence many people will be able to keep their money in their pockets, or purchase goods which are more stable in character.

The immediate prospects of the retail and wholesale sections of the trade are by no means certain, as there is usually a prolonged lull after the holidays, except there be some special reason for rendering the prescription department active. The wholesale branch will, without doubt, be "slack" for a couple of months, at least, but they will in all likelihood be able to do something during that period to prepare for the regular spring and summer trade, which follows then.

The junior students of the Philadelphia College of Pharmacy made a bet recently that, within a month the blue and white, college colors, would float from the stage of the Bijou Theater. The bet was won the other evening by an understanding with the assistant of a lady mind reader, who was giving an entertainment. During the performance the young lady was seen to come down into the audience, remove the ribbons from one of the students present, pin them on herself, and walk back to the stage in full sight of the audience. The bet was won.



CHARLES C. HINCHMAN.

T. H. HINCHMAN.

JOHN M. HINCHMAN.

T. H. HINCHMAN & SONS.

See page 82.

TRADE COMMENT.

DIRECTORY SUPPLEMENTS.

The third (1900) edition of the Era Drugists Directory has now been issued, and we shall begin the regular publication of the "Supplements" to this new edition in the next (February 1st) issue of The Pharmaceutical Era. We solicit from our readers information regarding any changes among the drug stores in their locality, such as new stores, removals, sales, failures, deaths, etc., etc. address

D. O. HAYNES & CO., Publishers,
DETROIT, MICH.

Soap was first manufactured in London in 1524.

Mich phosphate beds have been discovered in Lewis County, Tenn.

The pearl is only carbonate of lime, is readily affected by acids, and burns into lime.

Manchester, England, has been lately made a seaport by the completion of a ship canal.

Courses in "advertising" have lately been introduced in several progressive business colleges.

A sponge has been found on the coast of Florida with a circumference of 5 feet 6 inches.

The mica deposits at the Fortner mine, in Fannin Co., Fla., are reported as being developed for an Ohio syndicate.

Two hundred and eighteen thousand tons of phosphate have been mined in South Carolina during the last year.

It is said that the work of engraving the plate for the World's Fair diplomas will not be finished in less than a year.

The Government of India has appropriated 10,000 rupees for the equipment of a bacteriological laboratory at Agra.

Brunswick, Ga., exported over eight millions' worth of goods during 1893. A great part of this trade consisted of naval stores, etc.

The Grangers are engaged in a warfare against artificial butter in the State of New York. They want it taxed to the extent of seven cents per pound.

It is said that the postal authorities will soon discontinue the issue of two sizes of postal cards, and will hereafter furnish but one size only, 3½ by 5¼ inches.

A bill has been introduced at Montreal prohibiting the sale, by grocers or merchants not registered pharmacists, of chemicals, drugs and patent medicines. It has developed a great deal of opposition, and the result is awaited with interest.

The Savannah Board of Trade has been investigating adulterated turpentine, and has found that cheating by the use of irregular barrels is quite frequent. The propriety of selling this product by weight is being seriously agitated in some quarters.

It is estimated that the receipts of vanilla beans for 1893 are 30,000 pounds below those of the previous year.

The work on the die for the World's Fair medals was begun during the first week of this year at the Philadelphia mint. It will require several months to complete the die.

When a woman reads an article on the vulgarity of chewing gum it reminds her, says the *Atchison Globe*, that she hasn't had any to chew for several days, and she sends out to get some.

Here is a pointer for housewives and washers: Put a wineglassful of strong borax water in a pint of raw starch, and you can do up collars and cuffs as stiff as any laundry.

The Marquis Van Dickens (at the swell-est ball in London)—"Surely I have seen your beautiful face before, Miss Saint-louis?" Miss Saint-louis—"More'n likely. Pa used it on all his patent-medicine ads as 'after taking.'"—Chicago Record.

An editor out west who sends his paper out to "time subscribers" sends a bill each year. When a second bill is sent and there is no response he takes it for granted that the subscriber is dead, and publishes an "obituary notice" in his columns.

A life insurance company of India which enjoys a monopoly of the native business, makes no distinction in the way of extra premiums from opium users, and reports that during the last twenty years no risk has been paid for death that could be attributed to the use of opium.

A commendable feature which marks the management of the New York hospitals is the Saturday and Sunday collections from the drug, chemical and allied trades. For every dollar's worth of supplies furnished, the donor is entitled to one day of free treatment for himself or any one whom he desires to aid.

Human hair is an important article in the markets of India and China, large quantities being shipped to European countries. A foreign medical journal says this traffic is the cause of the introduction of many diseases, as it is cut from the heads of persons after death in China, and disinfection cannot be relied upon to kill all the disease germs.

The apparent incongruity which exists in associating pharmacy with gold or silver mines is entirely dissipated by the owners of a gold mine at Cripple Creek, Colorado, who have named their property the "Pharmacist." The name does not appear to be a hindrance to prosperity, as the company owning the mine report that they have paid dividends amounting to \$84,000 since its discovery.

The Czar of Russia has evidently been loafing around the drug stores lately and has become acquainted with the duties and needs of the pharmacist. In order to relieve them from the necessity of holding occasional meetings and resolving that the metric system ought to come into general use, he has quietly issued an ukase that at the beginning of the year this system must be used by all druggists.

T. H. HINCHMAN & SONS.

There are three occasions in the history of a business firm which are of sufficient importance to deserve mention. They are when they start in business; when they go out of business; and when they burn out. Two of these occasions would bring to the notice of our readers in connection with the well-known house of T. H. Hinchman & Sons, one of which is referred to in our news columns, and is an occasion when the sympathy of the trade is bestowed upon one of its honored members, and the other is one which, with its sequence of a successful career, calls for the congratulations of the trade.

The history of this prominent firm of wholesale druggists of Detroit is one which reaches back to a time when the city was considered "out west" and was best known as an important frontier town located on the eastern edge of the great northwest wilderness. Its growth has been coincident with that of the city of its location, and the character of its growth is of a nature which calls forth the same degree of approval which that of the city itself provoked in the mind of its average citizen. The personnel of the firm at present consists of Mr. Theodore H. Hinchman and his three sons, John M. Hinchman, Ford D. C. Hinchman, and Charles C. Hinchman, and the identity of interests which naturally resulted from this relationship has no doubt contributed in a large measure to the success which has distinguished the firm in making for itself a prominent position in the jobbing drug trade of Michigan and neighboring states.

Mr. Theodore H. Hinchman, the senior member of the firm, is the oldest druggist in Detroit and is also, we believe, the oldest in the state. He was born in Morris County, New Jersey, March 6, 1818, and acquired his early education in the public schools of New York.

His first connection with the drug trade was in the capacity of clerk, at the age of 14, in a retail store in New York City, where he remained one year. He then became connected with the wholesale grocery and commission house of John Johnson & Sons, then the largest in the United States, with which he remained four years, mastering in the meantime the methods of conducting wholesale trade as practiced by one of the greatest firms in the business. In 1836 he removed to Detroit and entered the drug and grocery house of Chapin & Owen, a house which had been established by Dr. Marshall Chapin in 1819. In 1842, Dr. Chapin having died, Mr. Hinchman became a partner in the firm, which was known as J. Owen & Co. In 1853 he purchased Mr. Owen's interest and took into partnership his brother, James A. Hinchman, who retired in 1863, at which time John M. Hinchman was admitted to the firm, which then became known as T. H. Hinchman & Son. In 1869 Ford D. Hinchman became a member and the firm name was changed to T. H. Hinchman & Sons. In 1872 Charles C. Hinchman was admitted to the membership, which remains practically the same at the present time, although the active management of the business of the house is now in the hands of John M. Hinchman and Charles C. Hinchman.

Many men who never went hungry for a dinner in their lives worry every day about to-morrow's noonday meal.



A TALK ON VANILLAS.*

By Charles E. Hires.

THE importance and value of the vanilla bean cannot be more correctly estimated than by a brief glance at its position as a factor in the commercial products of this country. To the majority of men the vanilla bean is used as a flavoring extract for ice cream, or to add a delicacy and piquancy to an after dinner dessert; but to the specialist, familiar with its use, it assumes a magnitude that is really astonishing. In the year of 1892, in this country alone there was imported and consumed in the various industries and agencies requiring vanilla over one million dollars' worth of this product, numbering over fifteen million beans, and employing in the operations of raising, picking, curing, packing and shipping, over 35,000 people, constituting in value, in commercial importance, in capital involved, in its production and in the amount of labor required for its development, one of the most important products of this vast and rich country.

The vanilla bean is indigenous to the soil of Mexico. The chief center of its cultivation is the state of Vera Cruz, and the metropolis of the vanilla district is the city of Papantla. After twenty years of active experience in handling vanilla, after a long and careful study of it as an article of commerce, and an intimate acquaintance

with its various uses, and its growing value as an article of import, I became possessed with a desire to see it in its natural state, to ride beneath the forests where it grew, to pluck it by my own hands from its natural branch, to enjoy its sweet and delicious aroma in the land of its birth, and in general to familiarize myself with the growth and preparation of this wonderful product, which is so rapidly growing in favor as one of our nineteenth century luxuries.

Take down your map of Mexico and locate the city of Vera Cruz in the state of Vera Cruz, situated on the western shore of the Bay of Campeche. Go north from Vera Cruz a distance of some three hundred miles to Tuxpan. Equip yourself there with a retinue of mustangs, servants, guide and interpreter, and start to the southwest on a three days' journey, over mountains, through almost impenetrable forests, over dangerous and treacherous morasses, and through tropical jungles, to the city of Papantla, situated about seventy-five miles from the coast, inaccessible by railroad or water, and in the heart of as wild and lawless a country as you would care to visit, and you have reached the heart of the vanilla growing district; only a few hundred miles by actual measurement, but requiring more time, toil, privation and danger than to make a trip to the Orient.

Actuated by the desire before mentioned, I left Philadelphia on the 31st of January, 1893, and after a few days'

railroad travel, arrived at Laredo, on the border of the United States and Mexico. From Laredo, on the Rio Grande, to the city of Monterey it is a distance of 170 miles. After a run of a few hours we stopped in a little town—Salinas—and found ourselves confronting a civilization entirely different from that which we left; here were one-story huts with thatched roof, a door, but no windows; women and children at the doors, and the children half naked. No floor but that of hard dirt, no furniture but a chair and stand with a lamp; a bundle of clothes in one corner, probably used as a bed. Flowers were in bloom, a species of cactus six feet high was growing everywhere, and the Spanish Bayonet, a queer-shaped tree of the Yucca variety, was the one prominent tree in the landscape. My vanilla expedition has now carried me about 2,200 miles from Philadelphia into new and strange surroundings. We find here a singular and instructive commentary upon the silver question that is now agitating the country. I found that in spending money this is one of the best countries in the world—the more I spent the more I had left, owing to the very low price of silver and Mexican finances being based on silver values. The Mexican dollar (or peso) is worth 65 cents, and an American dollar is worth \$1.60. When I bought \$1.50 worth of goods and gave a \$5 note I received \$6.25 in change, and it struck me as one of the most wonderful things in political economy that I had

*Read at a pharmaceutical meeting of the Philadelphia College of Pharmacy, November 21. Contributed to the Era by the author.

ever seen. My next stop was in San Louis Potosi, 300 miles from Monterey, having a population of 60,000, on the way you cross the Tropic of Cancer and pass from the temperate to the torrid zone. Here we come to field after field of the green Century plant. I next visited Toluca, some 300 miles south of San Louis Potosi, and 45 miles north of the City of Mexico—the capital of the government, where I spent nine days. Leaving the City of Mexico I proceeded to Puebla, then to Jalapa, and on to Vera Cruz, taking the Ward's line of steamers up the coast to Tuxpan, where I arrived after a thirty hours' sail. Here a tug came to the mouth of the Tuxpan River and took me off, steaming up the river nine miles to the city of Tuxpan. The city has 10,000 inhabitants, and is composed principally of one-story, limestone, thatched houses. After spending three or four days here getting my outfit together, consisting of four mustangs, servants, guide and interpreter, we started early one Monday morning for the vanilla land. We rode through a dense forest by a bridle path, where we had to go single file, after some thirty miles of hard riding, besides having to ford several rivers, coming to an Indian village on the Casonies River. We stopped about 11 o'clock at a small village composed of thatched bamboo houses, and where we waited until 4 o'clock before proceeding on our journey, and arriving at Casonies in the evening at about twilight. On the Casonies River we saw hundreds of Indian canoes plying up and down this stream with women propelling them. We started early next morning for Papantla, where we arrived at about 9 o'clock at night. This is some thirty-five miles further inland. It is a city of about 12,000 inhabitants, and is composed mostly of one-story, limestone, thatched houses. This is the metropolis of the vanilla growing district, situated in the valley surrounded by high mountains on all sides. This is the county seat. Court was in session when we arrived and it was impossible to get accommodations at the one hotel or any of the boarding houses. The hotel is a one-story building composed of three or four rooms; these were all turned into sleeping rooms at night, and everybody had to sleep together; cots were arranged side by side until there was scarcely room to get around. As the climate here is always warm eating is done mostly out of doors. By the courtesy extended to me through letters of introduction I had, I was taken and well cared for by Mr. Tremari, who is one of the first citizens and the largest curer and shipper of vanillas in Papantla. At last I am at the goal of my journey. In the land of vanillas, in the center of a district from which a large portion of the world's supply of this luxury is derived, and in readiness to transform into a reality the dream of years, and here I ask you to pause with me a moment to scan briefly the history of this strange and popular product, of which little is known to the general student.

When the Spaniards discovered America the custom among the Aztecs of flavoring chocolate with vanilla was already in vogue. The former borrowed the practice from the latter and transmitted it in turn to the other nations of Europe. A few years later this valuable product became an export article, and it

is believed that the first vanilla bean introduced into Spain came from the state of Oaxaca. It is raised in divers parts of the continent, in the Island of Cuba and other Antilles, and in some portions of Africa and Asia as well, and as a rule wherever there is enough heat, moisture and shade, provided the lowest temperature in winter be not lower than 55 degrees Fahrenheit.

At first that which grew wild in the woods was harvested, and the inference is clear that, in proportion to its gradual diminution and increasing consumption it was found necessary to foster its growth, and in this the state of Vera Cruz took the initiative, being the first place known in which the plant was under cultivation in America. Notwithstanding numerous inquiries, I have found it well nigh impossible, even with the aid of tradition, to ascertain the exact time in which the cultivation began; this alone being known, that the period is a remote one. From some of the old archives of Papantla we derive the information that in the year 1760 there were already in existence vanilla forests under cultivation. The state of Vera Cruz has had, and to-day possesses great natural advantages for the production of vanilla, but it is cultivated only in the cantons of Misantla and Papantla. For a number of years Mexico supplied the markets of the world with this product, but of late years the Island of Bourbon and Java have come in competition in European markets to a marked degree.

With this brief history of the origin of vanilla start out with me on a bright, clear morning in the month of February, with the thermometer ranging from 85 to 100 degrees; dressed in thin linen, with a light Panama hat, and mounted upon a mustang, for our first visit to the vanilla fields, located about nine miles from Papantla. The first error that you need to correct is our northern conception of a field. It is not here a carefully tilled, snugly fenced, and finely cultivated tract of land, but a wild, boundless, dense and almost impenetrable forest, with undergrowth so dense and rank that our mustangs must be abandoned at a by path, and we ourselves compelled to stoop almost to a creeping posture to penetrate it. Look at yonder tree—a Mexican cedar—25 feet in height, covered with dark green luxuriant verdure, with a small tapering trunk, a few feet in circumference, and clinging to and apparently growing out of its bark observe that strange looking, clinging vine, in circumference a little larger than an ordinary lead pencil, shooting up into the tree, covering its branches, and running from it into the adjoining trees, and often forming festoons and arbors so dense and thick as to exclude the rays of the sun at noon day. Imagine green pods, from four to ten inches long, covered with dark green and spear-shaped leaves, and hanging pendant from the interlacing branches, and you have a picture of a vanilla vine as I first saw it in its native soil and in its highest state of cultivation. Tree after tree in this vast forest is covered with those luxuriant vines, peeping from which, in all the glory of tropical luxuriance, are countless hundreds of the long, luscious, tapering vanilla bean; in circumference almost equal to a banana and from two to three inches longer; some of a dark green, and others of a bright yellow, and sometimes where they grow most luxuriantly resembling bunches of bananas, apparently growing

upon the native trees of the forests. The remoteness from civilization, the total absence of everything indicating care of the ripening fruit in the wild and unbounded woods made the scene one of the most strange and marvellous upon which the eye ever rested. Vast areas containing hundreds of square miles of contiguous territory in this province are devoted to the growth of this plant, wherever you look and wherever you travel you are confronted with this overhanging vegetation. You behold the primeval forest utilized by the half civilized natives as a natural garden for the growth of this delicious aromatic plant.

The cultivation of the plant consists of cutting away the forests to give it room to grow. The vines are naturally grown direct from cuttings, the same as grape vines, but they are also grown direct from the seeds, and in such cases the fruit is much later than when the vines are planted. The vine is very hardy in its native element, and sometimes takes root even if thrown carelessly on the ground, providing it has shade and moisture. Four or five years after the vine is planted, and sometimes before that period, its base rots for some distance, but before this occurs rootlets form above that portion which is dying, having already grown and descended along the tree to get nourishment from the earth. This circumstance, added to the fact that if a root be severed some distance from the ground it does not die, has given rise to two distinct theories respecting this plant, which I desire here to take the opportunity of correcting. The first theory, which has the support of many reputable scientists, is that the plant is Epiphyte, deriving its sustenance from the atmosphere and being independent of the soil, and the second that it is a parasite, and derives its nourishment chiefly from the trees to which it clings. A careful examination of the plant in its natural forests and a patient study of its habits and characteristics, have convinced me that both of these theories are founded in error, although before my visit to Mexico I confess I had been led to adopt the parasitic theory, upon information from many intelligent growers.

Mr. Fuent told me he had made the experiment of severing the reed two or three feet from the ground, and a few days later two or more tendrils had sprung from the lower end of the vine and gone directly to the earth, thus replacing the lost base. The reed is very juicy, and when deprived of its roots tries to replace them, but this is done at its own expense, taking nothing from the tree, which statement is proven by the fact that if it consumes too much time in its endeavor to reach the soil it withers. Should the tendrils reach the soil before the reed is entirely dried up the latter recovers later; but, if, on the contrary, its strength is not sufficient to accomplish the task of reaching the earth, it gradually withers until it dies. In spite of the facility with which the reed takes root and replaces its base, some die, either because the reed was not fresh and sound or because it was damaged, or by reason of its being in localities where it received too much sun or too much shade.

I found others familiar with the vanilla ground contending that the plant depended for its nourishment and growth upon the sap of a particular tree—the cojundi-

gate—and in support of this theory I was taken to the forest and shown vines growing luxuriantly around the base of this tree, showing great fertility and productiveness, and a high state of health. But upon examination of the facts I found that this tree would grow only upon certain soil, and under certain conditions, where the soil was always moist, and the reason that the vanilla grew so much better on this tree than any other, was because the conditions that so well suited the tree were the very conditions that best suited the vanilla plant, and when speaking of my observations in this direction, they admitted that it might be possible, and when finding in one of the gardens of Papanla, a vine growing upon a dead tree, they could not but confess, that it was perhaps not a parasite. These good people had before proven to me, or assured me in their correspondence, that the plant was a parasite, and it gave me pleasure to correct the error I was then laboring under. After making diligent inquiry about the plant, I had the pleasure of meeting Agopito Fontecilla, who I soon learned was an intelligent man, and who had made a scientific study of the plant, and to whom I am indebted for the greater part of my knowledge of the plant.

Taking the average of the last ten years, the number of beans that has been gathered each crop has been above 15,000,000, with the exception of a small quantity gathered on the southern coast of Vera Cruz, some 100,000. The remainder comes from the cantons of Papanla and Misantla, mostly from Papanla. The prices which it has attained during that time have varied much, ranging from \$2 to \$25 a thousand. According to the data in my possession it averages \$60 to \$70, and produces over \$1,000,000. The smallest unripe vanilla weighs twenty pounds to the thousand, and the largest sixty-five pounds to the thousand, and the average about forty-five to fifty pounds. The average loss of weight in curing is about nine pounds to the thousand. The length of the bean varies as much as its weight, from 4 1/2 to 10 inches; the greater part ranging from 7 to 8 1/2 inches. The plant (Vanilla Planifolia) grows a few yards in length each year, some portions of it clinging to the tree which supports it, and some remaining loose and hanging wavelike. Its thickness is about 3/8 to 1 1/2 inch. It is very juicy, round, and of a green color, knotty at intervals, of alternate leaves, shaped like spears and plump. The flower is yellow, and has a sweet agreeable smell. The plant grows in length only. It does not grow anything like a grape vine, and bears fruit only upon the new portion that grows each year. The thickness of the vanilla bean decreases gradually from two-thirds of the lower portion to the tip. Its shape is almost round, somewhat flattened on one side, curving up to the neck, which generally terminates in an arc. Its circumference varies, measuring when green from two to three inches, the greater part measuring three-fourths of an inch in diameter. It has a thin, smooth cuticle, with two superficial lines on either side. When thoroughly ripe its color varies from dark green to light yellow. Its lower portion is filled with small seeds, and after being treated its thickness is reduced to one-fourth of its original size. It remains black, oily, and has an agreeable perfume.

Around Misantla there are several varieties, which are known as Misantla beans, having thick skins. They are not packed as well and are not considered as valuable as the Papanla curing. These varieties are designated by the natives as Cimarrona, Mestiza and Manza. When cured only an expert can tell the different goods. The wild or Pompoma beans, Segne Xante, sometimes called banana vanilla by the Totonaca Indians, who eat them, are to be found here. This plant differs from the Vanilla Planifolia, in that it is much smaller, with larger leaves and less pointed. The bean is about twice as thick and of a triangular shape somewhat resembling the ordinary banana when insufficiently nourished. It has an agreeable fragrance, resembling that of the anise plant. It is commonly and naturally supposed that the bean grows and thickens until approaching ripeness. It is not so, for after it is two months and a half old it ceases to increase in size. Mr. Tremari said he had made several observations during the past two years, measuring vanilla from different vines, and has found that some after the middle and some after the last half of June have neither grown nor thickened in the least. The vine puts forth many blossoms, but the greater part do not bear, and those attaining full growth fall, or turn yellow and crack prematurely, owing to some disease in the seed, the beans, however, cling to it. This serves as a pretext for some persons to say that in October and November the vanilla bean is ripe and should be out, not bearing in mind that its apparent ripeness arrives from sickness in the plant, as shown by its defective nutrition, it being soft to the touch and lacking the solidity of the ripe bean.

I found that the plants grew best in virgin soil where streams and brooks abound, and where the earth is a little sandy, and the dampness is retained longer than in any other soil; in these places the vines grow luxuriantly and vigorously, and yield large fruit, a most important factor, when one considers how scarce rain is in this section between February and July. Marshy ground is likewise undesirable, as an excess of moisture rots the vine. It is found that plants do best where a little sun light can reach them, and the largest growers have trimmed out the heavy foliage that covers many plants. Yet vines exposed too much to the sun yield little vanilla, and what they do yield, is small; the plants soon get yellow and die in a few years. On the other hand those with heavy foliage never thicken. Their color remain a rich green, and finally sickens. The bean it yields is likewise small, badly nourished, and ripeness is retarded. After setting out the vines if they do well they will commence to bear fruit in about three or four years; the yield increases for four or five years, then begins to decrease. It bears a little vanilla after the tenth year. These vines yield, when fully developed, 85 and some as high as 200, although these latter are very rare. Some vines have branches that bear as much as 12 to 15 beans.

(To be continued.)

The crop of violets in the south of France is so much below the average that local perfume manufacturers are experiencing difficulty in filling their orders.

THE CHILIAN NITRATE INDUSTRY.

The Chilean nitrate deposits have long possessed an interest for scientists, diplomats and syndicates. The first named class have furnished us with a collection of interesting theories as to the causes which produced them. To the second named they have furnished a basis for those expressions of "distinguishing regard" which pass between the representatives of political powers whenever a new revolution has disturbed the question of their ownership, and to the last named they have furnished opportunities for both amassing and losing large fortunes. These nitrate beds are found along the northern coast of Chili, in the provinces of Tarapaca, Antofagasta and Taltal, and are roughly estimated to contain 100,000,000 tons of "caliche," or crude nitrate, extending over one hundred miles north and south, with an average width of two or three miles. Iquique and Pisagua, on the sea coast, are the chief cities of the nitrate district and are connected by rail with the various rich deposits along the coast and in the interior. The deposits are leased to several companies by the Chilean government, which derives a greater part of its income from this source. As with all extensive industries employing large capital, the nitrate has experienced many vicissitudes. The apparent inexhaustibility of the supply, and the instability of government, have served as incentives for the leaseholders to make hay while the sun shone, or to mine as much as possible between the intervals of governmental disturbances, with the result that overproduction and low prices have at times threatened the financial existence of the companies operating the deposits. This of course paved the way for the modern remedy for overproduction—the trust—and the "Combinacion Saliterra," with its allied corporation, the Iodine Combination, have for some time been important factors in the affairs of the industry. Late advices from Chili indicate a change of policy on the part of the authorities which may have an important bearing upon the destiny of the syndicate. The government is hard up and has announced its intention of selling the unoccupied portion of the nitrate beds along the northern coast of the republic and bids will be received at Santiago up to the 15th of next July. This action is likely to prove disastrous to the companies working under leases, as it will tend to increase the output and thus lower prices and increase competition. This condition may be forestalled by a purchase of the unoccupied beds by the combination, but it remains to be seen whether this great corporation can furnish the additional capital necessary for so great an undertaking. The affairs of Chilean nitrate bid fair to become an interesting subject to the financial world during the next six months.

Even that far away region, Mozambique, is beginning to feel the effect of civilization, and the country now has a bad case of "hard times" to deal with. Late advices from the British Consul there report a decided decrease in imports, attributed to heavy imports in excess of the demands of the local market during 1892, and the unsatisfactory crops during the last year.

THE LANOLINE CASE.

The full text is given below of the decision rendered by Justice Romer, of the High Court of Justice, London, on December 16, 1883, in the case of *Itenno Jaffe & Darmstadter Lanolin Fabrik vs. Hichardson & Co.*, the particulars of which action were given in the *Era* of January 1st.

Mr. Justice Romer said: "The patent the subject of this action is one for the manufacture of a product called lanoline from wool-fat. At the date of the patent it was well-known that the wool of sheep contained fatty matters, but at that date, for all purposes of practical utility, these fatty matters were only being extracted and used in the following way: The wool was washed with an alkali, or an alkaline soap and water, so as to extract therefrom all the fatty matters and impurities, which of course remained in the wash liquors, leaving the wool clean. These liquors were often referred to as waste liquors, because the main object of the washing was to clean the wool, and not to utilize the fats or impurities removed in the process. But at the date of the patent the waste liquors were not entirely wasted, but were utilized in the following way—and this was practically the only way in which they had been utilized for more than a century before that date. Acids were mixed with the liquors in the vessels containing them. The result of this was that the fats went to the top, and could be and were skimmed off and kneaded into a greasy substance. This substance was and is known as commercial wool-fat. It contained many impurities, some of which could be cleaned away more or less by washing, and then it would sometimes be called cleansed commercial wool-fat; but even this contained many impurities; it was darkish in color and liable to turn rancid, and had an unpleasant odor, was a coarse substance, which could only properly be used, and only was used, as a grease for railway wheels, or for treating leather, or for other similar purposes. It could not be, and never was, used as an unguent or ointment, or for any pharmaceutical or medical purpose; and until lanoline was discovered, and put on the market after the invention the subject of this patent, no product of wool-fat was used or had been used for more than a century for pharmacy or for any medical purpose, or appeared or was referred to in any Pharmacopoeia published since 1720. Moreover, the process by which this commercial wool-fat was produced was tedious and expensive and liable to cause obnoxious smells, and was a nuisance to the neighborhood of the factory. Now the product from wool-fat of 'Lanoline,' which was discovered by the patentees, and the manufacture of which was patented, was for all practical purposes a new and very valuable product. Its utility is not in dispute. It is extremely valuable as an unguent or ointment, being almost colorless, inodorous and not liable to turn rancid. It is largely used in pharmacy and can be usefully applied even to the mucous parts of the body. Its sale is very large and increasing, and it now appears in the Pharmacopoeia, and is recognized in pharmacy and medicine as a useful and valuable preparation. Such an invention as this is of great merit, and speaking for myself, I should approach the specification of such an invention with every wish,

as far as I legitimately could, to uphold it, and not if possible to allow it to be invalidated by technicalities. What, then, was the invention which enabled this new product to be made? To appreciate that, it is necessary for me to state shortly some of the properties of the wool in its uncleaned state and its products. It contains, besides impurities of various kinds, two fatty matters—namely, fatty acids in various forms, which when mixed with an alkali form a soap, and cholesterolin fats, which are practically not capable of being turned into soap by alkali. So that when the wool is washed with an alkali or alkaline soap, the liquor contains, (1) cholesterolin fats, (2) soap, and (3) impurities, and these three constituents differ in specific gravity, the cholesterolin being the lightest. If to this liquor acids are added in the way adopted before the patent, the result is that the alkali is driven out of the soap, and the fatty acids set free rise to the top together with the cholesterolin fats and some of the impurities, so that the fats skimmed off contain not only the cholesterolin but the fatty acids mixed with impurities, and these go to form the ordinary commercial wool-fat. Now, the fatty acids are the cause of rancidity, and it was chiefly due to their presence in the commercial wool-fat that it had the defects I have before pointed out, and could be utilized only for the coarse purposes I have mentioned, and not in pharmacy or medicine. If the cholesterolin fats are freed from these fatty acids and other impurities, then a product is obtained which, when kneaded and washed, is found to have a great capacity for taking up water, and to have the highly useful qualities I have before referred to under its name of lanoline. Now, the above properties of wool and its different constituents were for the first time fully ascertained and discovered by the inventors of the patented invention, and what they patented was the way by which (availing themselves of the properties they had discovered) the cholesterolin could be separated from the fatty acids and the impurities, and be worked up so as to make the lanoline. That way is seen to be a very simple one when once discovered and set forth; but with this as with many other inventions of the highest importance, it does not follow that because it appears simple when discovered and explained, it was obvious before, or did not require invention, or is not of great merit, or the proper subject of a patent. The contrary is the case here. Though many had previously sought a process whereby a better product might be obtained from wool washings than the commercial wool-fat, no such process had, up to the date of this patent, been ascertained, and I gather that the inventors only discovered the new process after a long course of investigation and experiment. The new process stated shortly is this: Take the liquor (or lye as it is sometimes called) coming from the wool washings by alkali or alkaline soap. Refrain from acidulating it—that is, take the fresh undecomposed lye—and bearing in mind that the three ingredients, (1) cholesterolin fats, (2) soap, and (3) impurities, are of different specific gravity, separate them mechanically by the well-known, best and quickest method, that is by a centrifugal machine. Take the light cholesterolin fats or raw lanoline so separated, and knead

it in cold water. Further purification can be applied by putting it in hot water (so separating the fat) and then putting the fat matter again through the centrifugal machine, or dissolving the fat by a solvent and separating the solution by any of the well-known means. And the fat so cleaned is then again kneaded with water, and the product lanoline is obtained. The specification also points out that you can obtain the product from commercial wool-fat by treating the latter with an alkali so as to obtain a milky fluid which is equivalent to the fresh undecomposed lye, and can be treated accordingly. Now from what I have stated it is clear that no objection could be properly made to this patent, either on the ground that the invention patented was not useful, or on the ground that it was not new or not good subject matter. What additional facts, then, have the defendants to rely upon to support an objection on any of the above grounds? Substantially nothing but this: It appears that the Greeks were aware, and Dioscorides pointed out, that from wool could be obtained (by washing it in hot water) some of the grease, and that if this grease were collected and washed repeatedly in water, a substance called 'oesypus' could be obtained, which was useful in certain cases as an unguent. But so far as the process can be ascertained from the known editions of Dioscorides or the treatises of persons acquainted with his writings, or with this oesypus, it is clear that it could not produce lanoline. Nor would any person acquainted with such process as described have been naturally led to discover lanoline. For, amongst other reasons, not a word was said in the descriptions of the process about any alkali being used, and from what I have stated above it is clear that without it no lanoline could be produced. Washings in water, if repeated often enough, will remove some of the more soluble fatty acids, but will not remove all, some of these fatty acids not being soluble in water. And, indeed, from the description of this oesypus set forth in the published works on the subject put in evidence by the defendants, it appears to me it had not the properties of lanoline. In addition, oesypus was practically unknown as a product for many years before this patent, and when, in fact, it was last used no one knows. It was last referred to in any Pharmacopoeia in 1720. Doubtless it was cast aside because not practically useful. Some experts for the defendants say now that they have produced a more or less satisfactory ointment by following Dioscorides' directions; but Professor Atfield stated that he only learned how to work Dioscorides' process gradually, and by the aid of three or four experiments, from which one can well infer what would have happened to any persons less skilled than he, if they had tried to make a product like lanoline merely from what Dioscorides had taught. All I need to say in conclusion on this part of the case is, that if any person can produce a useful article by merely following the directions of Dioscorides he is at liberty to do so, notwithstanding the patent; but I doubt if he can do so; and certainly it cannot be said that those directions are an anticipation of this patent or deprive the inventors of the merits of their invention, or prevent the court from saying that

the invention was new and good subject-matter for a patent and of great value. This disposes of all substantial objections to the patent. As is not unusual in patent cases, numerous objections were taken of a technical and petty description, which greatly increased the expense of the action and the time required to decide it, and yet when threshed out were found of no avail. All these were abandoned except one, which I must briefly notice. It is a typical instance. As one of the alternative processes for further purification of raw lanoline referred to in the specification, is dissolution by a solvent, and amongst other solvents mentioned, is methylated spirit. The defendants lay hold of this, and say it is not a useful solvent for, though it may dissolve impurities, and so be useful as a purifier, it does not dissolve, except with difficulty, the pure cholesterolin fats, and they say that according to the strict wording of the specification a person would gather that all the raw lanoline is intended to be dissolved. But in the first place, I am satisfied on the evidence that the persons to whom the specification is addressed would readily gather from it that such solvent referred to is to be used as a purifier according to its known properties, and would not imagine that in every case it was essential to dissolve the whole of the raw lanoline. In the second place, the defendants' witnesses on the subject appear never to have tried methylated spirit on raw lanoline, and on the evidence as a whole, I am satisfied that it can be used usefully on occasions as a solvent purifier on raw lanoline, though it may not be always so efficacious as some of the other solvents mentioned in the specification. The result is I hold the patent to be good. The only remaining question is as to infringement, bearing in mind that the patent is a claim for the making of lanoline, and does not separately claim the product itself. Now, admittedly, what the defendants are selling under the name of anaspaline is (putting aside an immaterial ingredient) merely lanoline. The question is, how is it made? Treating, as I am entitled to do for this purpose, the defendants and the manufacturers, from whom they buy their unfinished products as one person, the defendants' process of manufacture may be shortly stated thus: They adopt in substance the whole process of the patent, the only difference in the form of the process being that instead of mechanically separating the fresh undecomposed lye procured by alkali-washing by the centrifugal machine, they separate it mechanically by letting the lye rest in a vessel, so that the lighter portion, being the cholesterolin fat, goes to the top, and then they skim that off and work it. Does this enable the defendants to say that they have not infringed the patent? I think not. They appear to me to have taken the essence, or what is sometimes called the pith and marrow, of the invention. The use of the centrifugal machine was not of the essence of the patented invention. The machine was a well known method of separating, mechanically, materials of different specific gravity, and was to my mind referred to in the specification as being, and because it was, the most speedy and efficient known means for effecting the separation. The mechanical separation by allowing gravity to act on

such materials when deposited in a vessel in the ordinary way is a well-known equivalent, though not so speedy or efficacious, and the defendants cannot by adopting this, when they on all essential matters take the plaintiffs' invention, be heard to say that they are not using the invention or infringing the patent. It follows that the plaintiffs are entitled to the usual relief against the defendants as infringers."

WHERE OUR DRUGS COME FROM.

"Principal exports to the United States" is the title of a pamphlet lately issued by the State Department, which is of especial interest from the fact that it gives the value of our imports, and the names of the products, and the countries from which they are derived. The report is compiled from the reports of the various consuls of this country, and the figures bearing upon the extent of the drug and chemical imports are interesting both on account of the magnitude of the commercial interests involved in the trade, and the fact that they show that the most remote portions of the earth are called upon to supply our demand for drugs and medicines. The figures given, with a few exceptions, cover the calendar year 1892, and the report is arranged to show the value of goods as "declared for export" in the various consular districts. From the Buda-Pesth and Vienna districts of Austria-Hungary we receive drugs and chemicals amounting to \$122,758. From Trieste, insect powder and flowers amounting to \$71,884. From France our imports included olive oil, drugs, chemicals, argol, dye stuffs, toilet articles and perfumery and amounted to \$2,564,000.

Germany furnished us with drugs, chemicals, dyes, colors and essential oils to the amount of \$9,193,819. Greece sent us \$21,108 worth of sponges. From Italy we received olive oil, brimstone, canary seed, crude glycerine, soap, argols, orris root, almonds, licorice, sumac and essential oils valued at \$1,909,704. The Netherlands sent us cacao butter, drugs and dyestuffs amounting to \$366,470. Corkwood came \$1,069,057 and argols worth \$131,805 each from Portugal. The Batoum district, Russia, furnished us licorice root valued at \$624,363. Spain furnished us cream of tartar, glycerine, licorice, saffron, corkwood, olive oil and canary seed worth \$1,506,505. Sweden and Norway sent us \$82,055 worth of cod liver oil and oxalic acid worth \$18,090. Little Switzerland sent us anilines, dyestuffs and chemicals worth \$439,518 and enough argols and beef extract to make the total \$475,760. We received from Turkey in Europe, opium, \$403,013; attar of roses, \$11,923; gum tragacanth, \$55,620. From the United Kingdom, which seems to be a sort of clearing house for the world, we received drugs and chemicals amounting to \$12,570,180. British North America sent us \$22,003 worth of senega root and \$12,664 worth of sulphur. Sarsaparilla worth \$67,577, vanilla, \$710,580; fustic, \$130,913; gum chicle, \$75,965, and silver dollars, which are apparently a drug on the market, to the amount of \$454,031 came to us from Mexico. China furnished cassia, \$164,497; gail nuts, \$5,730, and rhubarb, \$16,454. Dutch India, gum damar, \$64,729; gum copal, \$30,452; cassia, \$26,538. Japan, sulphur, \$226,025; menthol, \$23,391; camphor, \$522,152. Philippine Islands, indigo, \$16,369;

ylang ylang oil, \$10,002. Turkey, in Asia, licorice root, \$1,023,710; opium, \$461,431. New Zealand, kauri gum, \$1,397,607. Tahiti (Society Islands), vanilla, \$36,688. Honduras, sarsaparilla, \$30,951; chicle, \$4,604. Brazil, copalba, \$28,955; guarana, \$8,078; castor beans, \$22,674. Chili, nitrate of soda, \$2,850,643; iodine, \$579,213. Peru, coca leaves and elixir, \$5,329. British West Indies, sponges, \$236,555; dyewoods, \$186,844; ginger, \$40,734; pimento, \$126,400. Dutch West Indies (Curacao), aloes, \$3,047. Gaudeloupe, vanilla, \$1,660. San Domingo, dyewoods, \$38,307. Porto Rico, bay rum and oil, \$3,494. Canary islands, cochineal, \$17,382; almonds, \$3,877. British Africa, argols, \$10,088; palm oil, \$1,892. Egypt, sena, \$36,627. Algiers, corkwood, \$22,159. Morocco, canary, cumin and coriander seeds, \$4,735. Zanzibar, cloves, \$289,688; clove stems, \$4,058; gum copal, \$51,836. British Asia, Aden, civet, \$4,898. Calcutta, drugs, \$4,272,076; saltpeper, \$518,545. Ceylon, coconut oil, \$937,331; cinchona, \$73,185; essential oils, \$73,015. Hong Kong, opium, prepared, \$543,091; cassia, \$70,170; medicines, \$51,418. Singapore, gambier, \$733,855; gum copal, \$119,493.

COMPARATIVE STATEMENT OF DRUG IMPORTS AND EXPORTS.

	Month ending Oct. 30, 1893.	1892.
Articles free of duty.....	\$8,174	\$112,845
Alizarin and madder.....	28,174	134,848
Argol or crude Tartar.....	111,875	144,689
Barks (cinchona).....	571	21,242
Cochineal.....	220	6,704
Crude.....	78,925	71,484
Crude dyewoods.....	11,174	6,139
Gums: Arabic.....	1,008	4,975
Camphor, crude.....	1,162	37,172
Gambier.....	101,884	91,789
Shellac.....	60,127	55,884
Others.....	310,946	292,943
Indigo.....	1,202	195,516
Licorice root.....	29,220	63,499
Bleaching powder.....	89,961	201,613
Mineral waters, natural.....	65,128	45,323
Opium, crude.....	70,742	106,125
Potash: Chlorate.....	32,355	34,675
Muriate.....	116,316	146,384
Nitrate.....	13,090	51,640
All other.....	16,353	64,746
Quinia sulphate and other cinchona products.....	23,625	50,025
Soda nitrate.....	62,787	208,455
Sulphur or brimstone.....	107,168	98,421
Vanilla beans.....	79,874	80,564
Miscellaneous.....	334,421	632,436
Total.....	\$1,744,196	\$2,771,368
Articles dutiable—		
Coal tar colors and dyes.....	\$ 69,846	\$ 243,836
Glycerin.....	23,697	68,276
Dyewoods.....	5,744	22,263
Opium for smoking.....	66,884	74,052
Soda: Caustic.....	64,341	123,239
Sal soda.....	4,841	23,237
Soda ash.....	191,610	467,358
Other salts of soda.....	6,136	29,048
Sumac, ground.....	1,981	15,161
Miscellaneous.....	236,298	367,173
Total.....	\$ 670,888	\$1,435,500
EXPORTS.		
Acids.....	\$ 10,691	\$ 6,094
Ashes, pot and pearl.....	1,083	225
Dyes and dyestuffs.....	115,623	81,559
Glycerin.....	77,648	99,673
Medicine, patent and proprietary.....	130,317	122,822
Roots, herbs, barks.....	29,298	19,749
Miscellaneous.....	255,410	287,910
Total.....	\$ 620,070	\$ 558,732

Some business men spend their time fooling over trifles that a cheap boy should be employed to attend to, and then they complain about hard times and dullness.

Now that the grip of the official photographer has relaxed, the World's Fair grounds are a favorite field for the photographer. The buildings are practically as good as ever for photographic purposes.

TRADE NOTES.

EASTER DYES.

These may be obtained of the following firms, all of whom have advertisements in this issue:

O. A. OHLE, Tiffin, Ohio,
PAAS DYE CO., Newark, N. J.

Antikamnia is now so well established as a favorite remedy with the medical profession that the retail druggist should be prepared for all demands for it which may be made upon him. The Antikamnia Chemical Co., St. Louis, desire that the retail druggist should have the benefit of the sales of this preparation and have placed it in the hands of the jobbers to facilitate its easy distribution.

Glenn's Sulphur Soap was one of the first articles of its kind introduced for the purpose of exhibiting sulphur in an agreeable manner for skin diseases. It is still on the market. It is well advertised and is still popular. The demand is steady and it should be kept in stock. The Charles N. Crittenton Co., 315 Fulton street, New York, are the wholesale distributors, and applications to them for advertising material will receive prompt attention.

The physicians of this country as a rule, are already quite well posted on the merits of Panopepton, the bread and beef peptone, manufactured by Fairchild Bros. & Foster, New York. They naturally look to the drug trade to supply their demands. Do you keep it in stock? Panopepton is made of the entire edible substance of prime lean beef and best wheat flour, thoroughly cooked, sterilised and concentrated, and is an excellent food in all cases where a quickly assimilable and comprehensive nutriment is required.

It is related by historians that during the middle ages there were no flies observed during the summer season in certain portions of Europe, and they also record the fact that these localities were devastated by the plague. Sanitary science has reached such a stage that we now have little fear of the dreaded plague, and have no reason to fear a decrease in the usual crop of flies. Henry W. Stecher, of Cleveland, O., says that the proper thing to do with flies is to "stick 'em" with his well-known brand of fly paper of that name. It is not too early to begin to figure on getting the best of this useful commodity—we are sure to have flies next summer.

The following letter to the trade is of interest in showing the personnel of the new firm, George Lueders & Co.:

218 Pearl St., New York, Jan. 2, '94.
I beg to inform you that I have this date admitted as partners, Mr. Ferdinand Weber and Mr. Henry J. Helster, and that from this date my firm name will be George Lueders & Co. I desire to thank my customers for the confidence and patronage shown to me ever since I have been established, and to which alone I owe the present extension of my business. I hope they will continue to honor the new firm with the same confidence, which will be appreciated as highly as heretofore.

Yours faithfully,

GEORGE LUEDERS.

The branch house at 90 Lake St., Chicago, will be under the management of Mr. Henry J. Helster.

The standard household remedies of Dr. D. Jayne & Son, Philadelphia, have been so long upon the market that no discussion of their merits is necessary, as the public has already expressed a favorable opinion. All the druggist has to do is to keep them in stock, the public does the rest. Jayne's Medical Almanac is a great favorite with the people. Have you got a supply for 1894?

The druggist has enough to worry about these days without putting up with the bother and trouble which attends the use of the old-fashioned methods of handling wrapping paper. The American Roll Paper Co., of St. Louis, manufacture the Economic Hopking Roll Paper Cutter, which is both a labor and a money saver. It saves paper by keeping it from being wasted, and saves trouble by keeping the paper where it can always be found. If you do not know all about this handy appliance, write for particulars, or ask your jobber about it.

How to keep brushes so that they could be easily inspected and not show too much the effects of handling and shop-wear has long been a question for the druggist who can only give a limited amount of room for this desirable side line. The question is answered by the Graves Brush Rack Co., of Rome, N. Y., by calling attention to their improved brush rack, a contrivance which allows the display of 10 dozen brushes in a small counter space 19x32 inches. The employment of this appliance means larger sales, less time, more profit and the satisfaction of customers. Its merits should be investigated.

Silurian Spring Water is now so universally recognized by the medical profession as being peculiarly suited for the treatment of many diseases not amenable to ordinary remedies, that it deserves some attention from the drug trade. The druggist can easily supply this demand by giving the matter proper attention and by co-operating with the physician can easily extend his trade in this now well-known medicinal agent. The Silurian products include still Silurian, effervescent Silurian, Silurian ginger ale, wild cherry phosphate, Silurian tonic and Silurian Vichy. Address the Silurian Mineral Spring Co., Waukesha, Wis., for information and prices.

FORMALIN.

"Formalin" is the name which has been given by the Chemische Fabrik auf Actien vorm. E. Schering, Berlin, Germany, to a 40 per cent solution of formaldehyd in water, which they were the first to place upon the market as an ideal germicide, disinfectant, deodorant and antizymotic, possessing the same germicidal power as corrosive sublimate without its toxicity. Formalin has given excellent results in the hands of eminent medical practitioners in diseases of the respiratory organs, ophthalmic practice, and general disinfection. This product is furnished in three forms, Formalin proper, a 40 per cent solution of formaldehyd in water, Formalin tablets of kaolin siliceous earth, containing 50 per cent of Formalin, and a dusting powder containing 20 per cent of Formalin. Schering & Glatz, 55 Maiden Lane, New York, are sole agents for the United States and will be pleased to furnish pharmacists full information regarding this product.

"Klinol," the new antipyretic and analgesic, has already established a demand for itself through the samples which have been lately sent out to the medical profession. The trade or profession applying for samples will be promptly supplied. It is put up in one ounce vials, and its price to the trade is 50 cents per ounce. Address all correspondence to The Klinol Co., Cleveland, O.

Headache remedies are so plentiful that the public must have a hard time remembering their names. With the case of Flag Salt the name itself attracts attention. The Flag Salt Itemedy Co., Savannah, N. Y., use the sample plan in introducing their goods, and send 1 dozen 2¢ cent boxes, 1 dozen 10 cent packages and 50 samples, charges paid, for \$2. The net return on this transaction is \$1.20. Send for free sample box and investigate the remedy.

FOOTE & JENKS TO THE FRONT WITH A BRIGHT NEW CARTON.

Beginning with the new year, we have arranged to supply a handsome new carton for our No. 608 bulk bottle for our Triple Extracts, so as to make them a much more desirable package for handling, either by jobbers or retailers.

The cordial reception given our 8 oz. perfumes in style No. 608 has induced us to continue to sell all regular Standard F. & J. Perfumes in the following list of odors, put up in half pint bottles at \$3 per pint:

	Per bot.
White Rose	\$1.50
White Heliotrope	1.50
Heliotrope	1.50
White Lilac	1.50
Purple Lilac	1.50
Lilly of the Valley.....	1.50
Jockey Club.....	1.50
Carnation Pink.....	1.50
Apple Blossom.....	1.50
Ylang Ylang, etc.....	1.50
Crab Apple Blossom.....	1.50
Golden Rod.....	1.50
Trailing Arbutus.....	1.50
Mignonette.....	1.50
Egyptian Lotus.....	1.50
Patchouly.....	1.50
Stephanotis.....	1.50
Tuberose.....	1.50
New Mown Hay.....	1.50
Rose Geranium, etc.....	1.50

SPECIAL ODORS.

Our special and trade-marked odors in Style No. 608 list as follows:

	PER BOT.
Linden Bloom (registered).....	\$4.75
Physian Bouquet (registered).....	\$1.75
Santa Maria (registered).....	\$1.75
Eastern Star (registered).....	\$1.75
Violet.....	1.75
Black Pansy.....	1.75
Extra Tonquin Musk.....	\$2.50
Extra Frangipanni.....	\$2.50

FOOTE & JENKS,
Perfumers,
Jackson, Mich.



No. 608, 8 Oz.

The Eagle White Lead Co., of Cincinnati, O., is an independent company and will quote prices on white lead (old Dutch process), red lead and litharge which will interest the drug trade. Write them before buying your supplies for the coming season.

Dr. Hoxie's Certain Croup Cure is a preventive as well as a cure for congestion and inflammatory conditions of the throat and lungs, and is a good seller because it tastes pleasant, does not contain opium, and does not nauseate. To introduce it a baker's dozen will be sent, express prepaid, for \$3.63, cash with order. As it retails for 50 cents, this price allows a good margin of profit. Address A. P. Hoxie, Buffalo, N. Y.

The peculiar construction of the "Knap" Ladies' Syringe makes this instrument one of the best upon the market. It is sold at prices which are justified by the excellence of its manufacture, and due regard is paid to the interests of the druggist by the quotation of prices which afford him a good profit. The good points of this article are worthy of consideration. Write to the Chicago Medical Specialty House, 358 Dearborn street, Chicago, for descriptive circulars.

One of the most important requirements for a soda fountain is absolute safety. This important feature is supplied by the Iron Clad Mfg. Co., of 22 Cliff street, New York. Their fountains are made of steel, rolled expressly for the purpose, and are lined with pure sheet block tin, insuring absolute protection from contamination. The security of the joints in these fountains does not depend upon solder alone, but they are all strongly riveted, and a malleable iron truss bottom also securely riveted, is an additional security against accidents.

The J. Hungerford Smith Co., of Rochester, N. Y., are going into the chewing gum business and have commenced the year by putting upon the market two brands, "Smith's True Fruit Kof-Kure" and "Smith's True Fruit Pepsin." Both brands have ingredients which will make them sellers on account of their medicinal virtues. They are put up in tablets wrapped in tin foil and enclosed in attractive pasteboard boxes. For the trade, both brands will be packed in boxes fitted with a glass cover and have an alarm bell which rings every time the cover is lifted. The latter arrangement will act as a discouragement to those people who are in the habit of getting their chewing gum for nothing.

The new catalogue of Powers & Weightman, manufacturing chemists, Philadelphia, is an entirely new publication, arranged to conform with the requirements of the U. S. P. 1890. The catalogue shows the wide range of chemicals which this firm manufactures and is embellished with half-tone cuts of the offices and laboratory at Ninth and Parrish Sts., Philadelphia, the immense laboratories at East Falls, of Schuykill, and the firm's office and storehouse at 56 Maiden Lane, New York. There is also included, as an appendix, an extract from the World's Fair letter to the Pharmaceutical Era, August 15, 1893, which gives a description of the firm's exhibit at Chicago, and much interesting information regarding the history of this great manufacturing establishment.

Satisfaction and reasonable prices are two features which distinguish Wampole's Beef, Wine and Iron. The former is due to the care used in the selection of material and its working up into the finished product; the latter are due to the fact that it is made in large quantities and the raw material is purchased in large lots. As to quality, samples will be cheerfully furnished for testing or comparison with the product of other manufacturers. Address Henry K. Wampole & Co., 411 Green street, Philadelphia, Pa.

The J. Elwood Lee Co., of Conshohocken, Pa., was favored by receiving five award medals at the Columbian Exposition for the following articles of their manufacture: (1) Flexible woven catheters and bougies. (2) Antiseptic gauze in glass box jars. (3) Surgeon's ligatures and braided and twisted silk. (4) Lee's metallic splints. (5) Hospital supplies. Their exhibit at the World's Fair was highly commended by all who saw it, and their price list dated January 1, 1894, shows a fine half-tone illustration of the exhibit. This price list shows many new goods and reduced prices, and should be in the hands of every druggist.

ART AND UTILITY.

The Low Art Tile Co., of 952 Broadway, Chelsea, Mass., have been in the business of making art tiles for thirty years, and specimens of their work may be found in some of the finest buildings and private residences in this country. The use of this material in soda fountain construction was simply a happy thought. It was simply the application of artistic ideas, which the public had already been educated to regard with favor, in a new channel, and after four years' experience the Low Art Tile Co. have abundant evidence, as shown by their many sales, that their work is highly appreciated by the soda water drinking public. To the dealer they guarantee the greatest economy in the use of the materials which he must handle in dispensing this popular drink, and they ask all intending purchasers as a matter of justice to themselves to obtain their prices before purchasing.

TO THE TRADE.

We want every druggist to know that we are one of the largest wholesale distributors of Rye, Bourbon and Malt Whiskies in bond and tax paid, in this country. We can furnish Eastern and Western Ryes, Sour Mash and Sweet Mash Bourbon and Malt Whiskies. We can supply fine blended whiskey under our own trade mark, as well as straight Ryes and Bourbons of our own bottling. We are agents for the product of Sen. Stanford's celebrated "Vina" ranch, whose wines and brandies are not excelled in this country.

We are headquarters for Alcohol and Cologne Spirits, which we supply at the lowest market quotations, and in addition to these staples we are agents for most of the celebrated cordials, such as Creme de Menthe, Kuemmel, Maraschino, and we carry in stock many others. A postal card from you will bring a printed list of the goods we carry, and we are pleased at all times to answer any inquiries from druggists regarding our goods.

THE WEIDEMAN CO.,

53, 55, 57 and 59 Water st.,
Cleveland, Ohio.

FROM RANCH TO TABLE.

The Cudahy Pharmaceutical Co., of South Omaha, Neb., evidently believe that hard times, with unemployed workmen and dull business can be remedied by making prices to suit such conditions. They recognize the great fact that people want goods just as much as ever they did and will buy as much as limited means will allow. They have made a general reduction in prices of pepsin and pancreatine. A one ounce bottle of Cudahy's Rex Brand Pepsin, 1-3000 U. S. P. 1890, soluble, non-hygroscopic and free from peptone, is now sold to the trade for 60 cents. Pancreatine at the same price, and essences, tablets, glyceroles, etc., at a corresponding reduction. Have you got their illustrated booklet, "From Ranch to Table," a write-up of the cattle industry? If not send for it and mention the Era.

CROWN LAVENDER SALTS.

The waning days of a great century, marked as they invariably are with some eccentric manifestation, have led to their being named as a sort of epoch by the volatile Frenchman, who with voice and shoulders describes them as *fin de siecle*. In this phrase *monsieur* will give his criticism of any unusual occurrence or event of which you may just now tell him, and to him it seems the perfect explanation. If the logic that guides him in this philosophic view be a little intricate, it is safe in this case, at least, to accept it for it is as good as can be gotten.

But when it comes to a close consideration of these manifestations of the *fin de siecle* period, it is a little better perhaps to cross the channel and take the expression, significant and conclusive, of our English cousins, which calls them "fads." As fads, humankind has lately lent itself to every conceivable vagary that the mind of man can conceive, or his concerted adoption save from being absolutely silly.

Occasionally, however, a fad crops out that is not altogether nonsensical, and is sometimes even decidedly useful. Such a one was on exhibition at Tiffany's the other day, and as the fad is invariably under the wing of Dame Fashion, this one is sure to have a large popularity.

In itself it consists of nothing more than a handsome cut glass jar closed with a massive silver lid handsomely chased and designed, the whole only about double the size of a good library inkstand. But the young man who started to buy one for his sweetheart as a handsome pickle jar, would find himself at fault. The jar has other uses—hence the fad.

Since the Crown Perfumery Company, of London, first brought out its now famous Lavender Salts, the entire feminine world has come to look upon them not so much as a luxury as they are a luxurious necessity. Apart from their use in the boudoir, the exquisite perfume which these salts give off when opened in a room has brought them prominently forward as atmospheric perfumers. It is in recognition of this use that the jewelers have constructed the jars before mentioned, and no society woman now but has one of them filled with the delicately tinted salts on her drawing room table. This is by no means, however, an exclusively American fad, as we learn that the great jewelry houses of Paris and London also have the Lavender Salts jars, and that they are immensely popular over there.

The Thurmond Chemical Co. has been organized at Dallas, Tex., to manufacture Thurmond's Catarrh Cure and Blood Syrup.

The famous Swan Gin of Medler & Zoon, first put upon the market in 1824, has always borne a favorable reputation with the trade for its many excellent qualities. The attention of the drug trade is called to it as a product especially suited to their needs by the advertisement in this issue of Ferd. Ruttmann & Son, New York, who will furnish all information desired as regards quality and prices. This brand is for sale by all the leading dealers.

The Pettit Mfg. Co., Canajoharie, N. Y., are after your trade for 1894. You should be after the trade of your entire neighborhood for 1894. The firm say you can get it by handling Pettit's Extra Fine Chocolates. Their reputation is at stake in this chocolate matter and they are willing to extend liberal assistance in introducing their goods to the public and in giving you a reputation for handling the finest chocolates made. Write them for particulars.

The California Fig Syrup Co., has always recognized the fact that their best interests lay with the legitimate drug trade, and have always heartily supported any movement which had for its object the maintenance of the fixed retail price. This position will be steadily maintained by them, and the preparations they have made for advertising during 1894 is destined to make Syrup of Figs one of the best-selling proprietary articles handled by the retail drug trade.

The Saratoga Victoria Water enjoys a favorable reputation as the "Monarch of Table Waters" and the "Ladies' Favorite." It owes its popularity to its sterling qualities and absolute purity, and it is claimed to have no equal for indigestion and all uric acid troubles. It is sold in bottles only, packed in cases containing 100 pints or 50 quarts. Liberal discounts are given the trade. Write for particulars to Saratoga Victoria Spring, P. O. Box 93, Saratoga Springs, N. Y.

The "Golden Age" champagne manufactured by the HammondSport Wine Co., HammondSport, N. Y., is produced by the natural method of fermentation in the bottle, thereby retaining the carbonic acid gas as nature generates it. Its other eminent health-giving properties make it a most popular brand, and its freedom from excess of alcohol, sugar and acid cause it to be recommended by many physicians as a most effective aid to digestion and a preventive of dyspepsia.

CATARRH.

Hilden & Co., of New Lebanon, N. Y., strongly recommend their well-known preparation, Firwein, as a remedy in the treatment of nasal, post-nasal, pharyngeal and laryngeal catarrh, and feel confident that all sufferers from any of these diseases will thank them for the suggestion. It should be used in these cases by means of the spray or atomizer. It may be used full strength or combined with one of the petroleum oils. While being used locally it should be given internally so as to reach those parts inaccessible to local medication.

Have you noticed the recent change in the advertisement of the A. P. W. Paper Co., Albany, N. Y.? They call attention to the fact that you can now sell roll toilet paper for what it formerly cost you. If you will send for their new catalogue and reduced price list you will find figures that prove this assertion.

The druggist who is desirous of viewing the question of extract of beef from all sides should investigate the merits of the solid and clarified fluid extracts manufactured by Nelson Morris & Co., Chicago. The facilities enjoyed by this firm as one of the largest handling meat products in this country, enables them to give the highest degree of excellence to their goods, and for their meat extracts they claim a distinct superiority, coupled with attractive package and lowest prices.

Aristol, Salophen, Europhen, Phenacetine, Piperazine, Sulfonal, Losophan and Trional form a combination of new remedies with which the physician can successfully combat a wide range of diseases. They are all the product of one firm, the Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, and W. H. Schieffelin & Co., New York, are the sole agents in the United States for these preparations. The literature upon this extensive line of new remedies should be in the hands of every pharmacist, and can be procured by simply addressing this New York firm.

White Rock Lithia Water, put up by the White Rock Mineral Spring Co., Waukesha, Wis., is offered as a pure medicinal water, containing more lithia than any other on the market. The spring flows from a fissure in the solid rock and thus gives a water perfectly free from all traces of organic matter. The present capacity of the bottling works is 10,000 bottles per day, and the water is marketed in cases of 50 quarts, 100 pints, and in barrels. The company has lately perfected a package for shipping water in barrel lots so that it can be kept free from all taste of wood, and remain as pure and sparkling as when it flows from the spring. Write for price list and information regarding the therapeutic properties of this water.

THE WORLD'S FAIR FOR SALE.

LOOK AT IT! The Michigan Central has arranged with one of the best publishing houses in the United States for a beautifully printed series of World's Fair pictures, to be known as the Michigan Central Portfolio of Photographs of the World's Fair.

The original photographs would cost not less than a dollar apiece, but the Michigan Central enables you to get 16 pictures for 10 cents.

It's the finest. It's the most complete.

It's the best. It cannot be beaten.

If you saw the World's Fair, you want it as a perpetual souvenir of a memorable visit.

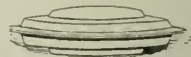
If you didn't get there you want this to see what you missed, and to fill your mind with the beauty and glory of the White City.

Call on the nearest Michigan Central ticket agent, and he will furnish you with the first part and tell you more about it, or write to O. W. Ruggles, G. P. & T. Co., Chicago, enclosing 10 cts. for the collection.

E. J. Hussey & Co., 80 John street, New York City, have put upon the market the "Tri-mo' Ladies' Syringe, which is destined to become very popular and a quick seller. It is a strictly high grade article and it will pay our readers to investigate its merits.

The drug trade is ever ready to welcome any invention which will obviate the petty annoyances which seem inseparable from the practice of pharmacy. The Josselyn Label Holder seems to be an article of this character, which is entitled to a warm greeting. It does away with mislabeling, prevents mistakes and does away with the trouble of hunting for labels. The holder is cemented to the back of the dispensing bottles and holds fifty labels. The labels are placed with gummed surface out and the heat of the finger coming in contact with the gummed surface, attaches the label to the finger while the customer's bottle is being filled. Write to Josselyn & Co., 19 Wabash ave., Chicago, for full particulars, or enclose 30 cents for sample.

The Wm. S. Merrell Chemical Co., of Cincinnati, O., solicit the patronage of the retail druggist upon a well defined platform which naturally brings the physician and pharmacist together for their mutual advantage. They believe in creating a confidence in the mind of the physician as to the reliability of their goods, and they aim to supply their products to the retailer in original packages for dispensing purposes, so that this confidence may be retained by the prescriber. They therefore discourage sales in bulk as tending to create suspicion in the mind of the physician, but they make prices as low as consistent with best quality, and which investigation shows are often as low as for the same articles as furnished in bulk by other manufacturers.



A LONG FAREWELL TO THE PILL.

The introduction of the Cachet, S. Chapreau, for which Utard & Co., 3 Union Square, New York, are sole agents for the United States and Canada, means a good deal for the advantage of the retail druggist. There are certain objections to pills both from the standpoint of the patient and the physician, and there are also objections when the pharmacist is called upon to prepare them extemporaneously. By the employment of the cachet many of these difficulties are obviated. The apparatus for their fabrication is exceedingly simple and its price is nominal. But a fraction of the time employed in putting up pills is necessary to be employed in putting up powdered drugs in cachet form. The cachets being made of the thinnest possible wafer they do not interfere with the digestion or create disturbance in the most delicate stomach, and their ingenious shape gives them the greatest capacity of any on the market, and also renders them easy to swallow. This form of medication is quite popular among physicians wherever introduced, and pharmacists will do well to write for full particulars and bring the details of the process to the notice of their physicians.

John Lucas & Co., Philadelphia, makes a specialty of varnishes and japans for the drug trade. The quality of the goods and convenience of the packages are recommendations which help to sell them. Remember these facts when preparing to buy for the coming season, and send to John Lucas & Co. for prices.

The druggist who uses Tooth Powder Bottle No. 602, improved, manufactured by John Maris & Co., Philadelphia, is sure to enjoy a good trade in the tooth powder which he puts up. The bottle is constructed with a screw, spring bottom cap, which when removed, leaves the bottle entirely open at the bottom so that it can be filled instantly. A slight touch of the thumb or finger upon the spring bottom ejects the powder from the top on the brush, and none is wasted. Your customers will like this bottle. Sample will be mailed for ten cents.

The customer who tries a free sample of Cooper's Floral Dentine always wants more of it. At least this is the experience of the many druggists who are now handling it, and there is no reason to doubt that this plan of introduction will produce the same result in all cases. It is a great favorite with smokers as its use removes all traces of the tobacco odor. The manufacturers, Cooper & Hardenburgh, Kings-ton, N. Y., send 150 samples with the retailer's name printed thereon, with every order for three dozen accompanied by \$1.50.

The latest offer of Gilpin, Langdon & Co., Baltimore, is along the same line of utility which has characterized the previous offers of this firm. They now offer a set of metric weights and measures to every pharmacist purchasing their powdered drugs for percolation to the amount of \$15. They believe the druggist should make many of the pharmacopoeial preparations and they offer to furnish the necessary apparatus required in following the directions of the U. S. P., 1890. Send for price list, formulary and other matters of interest to every pharmacist.

Whitall, Tatum & Co., of Philadelphia, show something in this issue of the Era which ought to attract the attention of every druggist. The Phenix Herb Cans are an improvement upon the usual style of these containers. They are made of heavy tin, japanned a rich olive green color, with gold lines at top and bottom. The names instead of being painted on the cans are lithographed on strips of metal, and these labels are held in place by neat brass frames, which are detachable, thus allowing the contents of the cans to be changed at pleasure.

C. G. Buck's Mutton Suet, Carbolated, is a preparation that is meeting with great success as a salve for general family use. The curative virtues of mutton suet have long been known, as it occupies a prominent position in the field of domestic remedies. Now that a process for refining it has been successful, its combination with arnica and carbolic acid will undoubtedly extend its use. C. G. Buck, whose laboratory is located at 55 Franklin street, Chicago, also manufactures Benzoin Lotion, a fragrant toilet liniment, Children's Dentifrice, Kilo Cordial, Dr. Barnes' Antiseptic Liniment and Clincoea, nerve tonic. All these preparations are supplied by the leading jobbers.

"The fellow that got behind and went up," is still up, as will be observed by looking at the advertisement of the Hero Fruit Jar Co., in this issue. While satisfying yourself as to this fact observe what they have to say about your putting up your own toilet preparations and using their bottle stoppers, collapsible tubes, etc., and send for samples and prices.

Artists, painters, varnishers, kalsominers and whitewashers have their most exacting demands supplied by the products which emanate from the brush manufactory of John L. Whiting & Son Co., High and Purchase streets, Boston, Mass. The dealer also finds that his desire for a profitable brush trade is supplied by the same line of goods. The drug trade is especially invited to investigate the Whiting brushes.

The firm of the Foote & Jenks, perfumers, Jackson, Mich., passed through the panic of '93 in good strong shape, and have had a large fall trade. As all the salesmen are stockholders, they were at the annual meeting on January 1, and have started out for the year 1894 with prospects of greater success than ever before. The company has greatly enlarged their department of Flavoring Extracts as well as those of Perfumes, Soaps, and Powders.

Bell-Cap-Stic Plasters are well advertised in all the first-class magazines and leading papers, and as a natural consequence they are good sellers. The elegant oleograph "The Puppies" is a great hit, and it is also playing an important part in the advertising of these goods. The special offer on these plasters which will be found in this issue of the Era is worthy of careful attention. All orders should be sent to J. M. Grosvenor & Co., 105 Milk street, Boston, Mass., but the goods will be shipped through the jobbers. Mention the Era when writing.

Cash registers and show cases are necessary appliances in every drug store. From the fact that Shiloh's Family Remedies are good sellers they might be considered in the same category. The connection between these articles may be learned by consulting the advertisement of S. C. Wells & Co., Le Roy, N. Y., in this issue. The prices on these goods are well known, so that the druggist knows the offer of a cash register and show case, free, is not balanced by a deterioration in the quality of the goods. Write for full particulars and mention the Era.

FOREST CITY FARM.

Frank Caton, one of the trainers at the Forest City Stock Farm, Cleveland, and who does most of the veterinary work, says: "We use Quinn's Ointment, and think it is the best remedy we have ever had. I can recommend it every time." This is the universal expression of the leading farmers throughout the United States. For curbs, splints, spavins, windpuffs, and all bunches, Quinn's Ointment has no equal. It will pay all druggists to carry it in stock and if you desire advertising, or will send the names of ten or twelve of your customers who are in the horse breeding line, to Messrs. W. B. Eddy & Co., Whitehall, N. Y., they will forward them, without charge, trial packages.



Easter Egg Dyes are sure sellers and the druggist who is the first to let the public know that he intends to have a good supply of the well-known Paas Dyes is sure of being remembered when the time comes to buy. The retail sale of these goods is confined to a period of a few days, but the advertising of them should commence weeks before. Write to the Paas Dye Co., Newark, N. J., for circulars.

PHARMACEUTICAL LIQUORS.

There is a logical middle-ground upon which both the pros and cons of the liquor question can consistently meet and join hands. This particular province is strongly dominated by forebearance and common sense and is the position which the profession of pharmacy by its own teaching necessarily occupies. There is, however, no middle-ground when the question of the selection of spirituous liquors for medicinal use comes up for consideration. The United States Pharmacopoeia has announced certain well-defined limits by which these products must be judged, and the pharmacist who allows any deviation from these standards allows a suspicion to attach to all the medicinal agents which he handles. The belief that the pharmacist does not pay as much attention to the quality of the liquors handled by him is not without foundation, and will remain until the pharmacist himself takes the proper steps to remove it. He should be in a position to advise the physician upon the characteristics of the various leading brands upon the market, and his purchases should be made with a view of furnishing articles which will meet the various requirements of medical practice. Assuming the correctness of this position there still remains the question of where to buy. The choice should not be narrowed to one class of manufacture, but should only be made after the advantages of all have been considered. The Weldeman Company, of Cleveland, O., from their position as dealers in all first-class brands, offer to the trade unusual facilities for the proper selection of the best goods. If Eastern or Western Ryes, Sour or Sweet Mash Kentucky Bourbons, or Malt Whiskies are desired, they offer a complete line of all the best brands upon the market. They are importers of foreign brandies, gins, wines, etc., in bulk, or in cases, and are agents for the celebrated cordials, such as Creme de Menthe, Kuemmel, Maraschino, Absinth, etc. The products of Senator Stanford's celebrated ranch "Vina," which have done so much to belighten the reputation of California wines and brandies, are always kept in stock by this house. They are wholesale distributors of alcohol and cologne spirits, and to all druggists who desire to handle the best which the market affords they extend an earnest invitation to test the quality of their goods and avail themselves of the courteous treatment which is a feature of their dealings with all customers. Write them for latest quotations upon their goods, and mention the Era.

How is your stock of Floor Wax? It is best to be always prepared for a demand for this article. It is also a good idea to pay strict attention to its quality. On the latter point W. H. Howdlear & Co., of Boston, will convince every druggist who desires information and will write them on the subject.

Irwin, Kirkland & Co., of Decatur, Ills., are the lending manufacturers of "non-secrets" for the drug trade. Their packages are handsome and medicines of superior quality to the advertised proprietary remedies and only cost one-half as much, thus affording a living profit. It will pay you to write for catalogue at once. Remember the address, Irwin, Kirkland & Co., Decatur, Ills.

As an incentive to druggists to keep their goods in stock, so that every demand may be promptly supplied, the Eureka Chemical Co., 10 and 12 Michigan avenue, Detroit, offer to send to any retail druggist, one dozen Pennyroyal Wafers by express, prepaid, at the regular price of \$3 per dozen, and they agree to wait one year for their pay. These goods are well advertised in all the leading newspapers.

John Phillips & Co., manufacturers of drug fixtures, show cases, etc., Detroit, Mich., have reason to be gratified with the success which their show case called the "Silent Salesman" is now meeting in the way of increasing sales. They give elsewhere in this issue the names of a few druggists who are now using it with great satisfaction. Write for their catalogue and prices. They furnish estimates for fixtures when desired.

The Hazeltine & Perkins Drug Co., of Grand Rapids, Mich., have gotten out an elegant calendar for 1894. It is printed in half tone on twelve sheets of cardboard and the pictorial work includes portraits of the members of the firm, their traveling salesmen, and views of the various departments in their establishment. The calendar is called the Fortieth Anniversary Souvenir and a brief history of the firm since its establishment in 1854 is included.

The D. B. Scully Syrup Co., 49-51 River street, Chicago, present some convincing arguments in this issue of the Era, bearing upon the superior qualities of their Rock Candy and Rock Candy Syrup. The points of excellence to which they call attention are those which every druggist desires to be present in the goods he handles, and the Scully Syrup Co. will be glad to furnish all necessary proof that their goods are just what they represent them to be. Write them for price list and market quotations.

Malt Extract deservedly holds a high place in the estimation of the medical profession, and when a physician obtains good results from a certain brand he is inclined to continue its use. The Royal Malt Extract Co., 1929 Washington avenue, Philadelphia, offer the pharmacist an opportunity to build up a reputation on an extract of malt which will bear his own label. This preparation made by this company gives good satisfaction, pays a good profit and is now used by over 300 druggists in Philadelphia. Write for prices and mention the Era.

"Two excellent articles," is the verdict upon the offer of W. E. Mattern, 1064 Millard avenue, Chicago, who offers one dozen Mattern's Headache Powders at 75 cents per dozen, and includes an Era Dose Book free. Both give satisfaction.

The "Unique" Self-Heating Hair Curler is a new invention lately put on the market by the Unique Novelty Co., 99 Abbott St., Detroit, Mich. It consists of a small metal tube holding alcohol, on the end of which is a lamp burner to which is attached the hair curler. The lamp and curler being in one piece the combined apparatus does not take up any more room than an ordinary curling iron, and its use at evening parties, and as an adjunct to the toilet while traveling is rapidly bringing it into favor with the fair sex.

When it comes to side lines, there is nothing which may better engage the attention of the retail druggist than the Turkish towels and bath robes manufactured by the Star & Crescent Mills, of Philadelphia. If the druggist can successfully handle soap, brushes, etc., for bath purposes, he certainly ought to make a success of these other important adjuncts. An investigation on this point is certainly in order. Write for the little book on Turkish Toweling published by this firm and see if you cannot find a remedy to prevent trade from slipping away.

The shop bottles manufactured by the Daves Manufacturing Co., of Pittsburg, Pa., present many desirable features which indicate a great improvement over the old styles now in use. The recess bottle allows the label to be set so that its outer surface is flush with the bottle, which prevents the breaking and chipping which is so frequent when labels are set upon the outside of the bottle. These bottles are patented and are not made or sold by any other manufacturer in the United States. Samples of the different styles will be sent labeled on receipt of 50 cents.

MELLIN'S FOOD.

The Dolber-Goodale Co., manufacturers of Mellin's Food, showed considerable enterprise by publishing upon the back cover of the Youth's Companion for November 23, 1893, an exact reproduction made from a photograph of the original drawing of the World's Fair diploma received by them for their exhibit of Mellin's Food at Chicago. This food seems to have been in high favor at the World's Fair as it was the only one used in feeding the infants that were left at the Creche in the Children's Building, and was highly recommended by Miss Marjory Hall, the matron in charge.

SOME LARGE FIGURES.

Twenty-seven thousand soda-water apparatus sold in thirty-one years are the figures which Jas. W. Tufts, 33 Bowker street, Boston, has to show for his successful business, which was inaugurated in 1853. Assuming that these fountains average five feet in length, they would, if placed side by side, form a continuous line twenty-five miles long. Less than one hundred were sold in 1863 and over fifteen hundred were sold in 1893. New and attractive designs have been placed upon the market and prices have been so fixed that the prospect for 1894 is better than in any previous year. Write for terms, catalogue, or list of second apparatus and mention the Era.

The wines manufactured by the Crescent Wine Co., of Hammondport, N. Y., are made and put up with great care, and are especially recommended for family and medicinal use. Samples and prices, which are furnished upon application, will convince anyone that for purity, flavor, keeping qualities and reasonable prices, the Crescent wines are equal to the best.

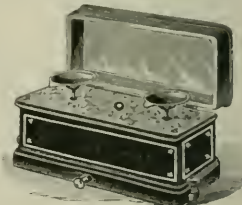
Chas. F. Kade & Co., managers of The Quincy Show Case Works, 216 E. Lake St., Chicago, ask every druggist who is contemplating a change in his fixtures to communicate with them before placing an order. They make a specialty of drug store fixtures and fountain tops, and will be pleased to send estimates and special designs free of charge upon application. Send for their catalogue.

THE LATEST PERFUME.

Foote & Jenks' tribute to the year 1894 is a new odor christened "Eastern Star." It will be put out under special registered label, bearing in neat design the emblematic star of the well-known ladies' order of the Eastern Star. The odor in itself is exceptionally refined and lasting, and is destined to take high rank among the other choice perfumes for which this house is already famous. Write Foote & Jenks, Jackson, Mich., for price and sample.

GOLD WATCHES.

The several liberal offers of McLellan & Patton, 503 Manhattan avenue, New York, as shown by their advertisement in this issue, are worthy of attention. As an introductory measure they offer one dozen Dr. Patton's Headache Specific, free to any druggist who will send them the names and addresses of fifty customers to whom they can mail samples. For orders for one gross they make a present of a silver watch or an Era Formulary, and for two gross orders they give an elegant gold watch.



STYLE 276.

The above is an illustration of the latest Torsion Balance prescription scale put upon the market by the Springer Torsion Balance Co., 92 Read street, New York. The scale is sensitive to 1-30th of a grain and is guaranteed to remain so; a load of 8 ounces on each side would not injure it, thus showing that strength, durability and accuracy have been well combined in its construction. The price has been placed at \$15 for the present, a figure which places it within the reach of all. The triple beam recently put upon the market by this company is growing in favor every day, as it does away with the necessity of purchasing metric weights and gives the equivalents in the three systems at a glance. Send for copy of their latest illustrated catalogue, and report of Franklin Institute upon Torsion Balances.

As an evidence of the popularity of their pharmaceutical machinery, J. H. Day & Co., of Cincinnati, O., lately made extensive shipments to Calgary, Alberta, and Corpus Christi, Mex.

This month "Preston of New Hampshire" calls attention to the "Elvromouth Sachettes." Twenty years is a long time, but it took twenty years' study to perfect the formulas. See advertisement.

An eastern sarsaparilla firm has recently got out writing books containing finely written copy extolling the virtues of their sarsaparilla. The firm offers cash prizes to boys and girls under 15 years of age who send in the best written books.

Careful pharmacists are particular in selecting their corks for prescription work, and manufacturers of proprietary articles are equally fastidious. They will have what they want, and the Williamsburg Cork Co., Brooklyn, N. Y., are ever prepared to furnish them all goods on demand.

If you use homeopathic vials, screw cap, tube or specimen vials, you should correspond with the Standard Flint Glass Works, 1120-1128 Charlotte street, Philadelphia. They also manufacture glass syringes, test tubes, inhalers, pipettes, glass tubing, etc., and can quote prices which will interest the drug trade.

Dr. R. A. Wilson's Anti-Dyspeptic and Headache Pills, which have been on the market over fifty years, are now put up in granule form, in vials, with Turkey red wrappers. They are also put up for the retailer on an attractive show card and wire easel, which aids materially in bringing them to the notice of the public.

Lord, Owen & Co., of Chicago, show some of the leading styles of Whiting's brushes in their advertisement in this issue. The prices quoted call for careful consideration, and the catalogue, which this firm will mail upon application, should be in the hands of every druggist before he selects his stock for the coming season.

Prescription blanks are regarded by many druggists as an item which properly belongs on the loss side of the profit and loss account. If this view is correct, the greatest care should be exercised in selecting the best that can be got for the least money. J. B. Burr & Co., Hartford, Conn., name some prices on this class of work which reduce the expense to a minimum. Send for samples and price list.

With the exception of one factory, the manufacture of quinine, morphine and their salts, and santonin, is confined to the New York Quinine and Chemical Works. They are also the largest makers of aloin, cocaine and acetanilid in the United States, and they call the attention of the drug trade to their products as possessing all the qualities which should belong to reliable remedial preparations. In ordering specify "N. Y. Q."

PLAYING CARDS.

You can obtain a pack of best quality playing cards by sending fifteen cents in postage to P. S. Eustis, Gen'l Pass. Agt., C. B. & Q. R. R., Chicago, Ill.

A cork is a small article, but in pharmaceutical practice the best are none too good. The Lancaster Cork Co., of Lancaster, Pa., have made a specialty of druggists' corks for years and their XXX grade is at the top of the heap.

The prediction that the magnificent architectural features of the Columbian Exposition would forever live in the minds of the people is being verified. The Ferris wheel is now a prominent item in the stock of the show-window artist.

Schoellkopf, Hartford & Maclagan, Limited, of 3 Cedar street, New York, from their position as large importers and manufacturers of drugs and chemicals, are enabled to make exceptional offers, as regard quality and prices, to the drug trade. They call especial attention in this issue to carboic acid, Curacao aloes, Japanese santalwood, ergot, menthol and Australian santalwood oil, and will be pleased to quote prices upon application.

EASTER EGG DYES.

The offer of O. A. Ohl, Tiffin, O., in the Era January 1, to furnish a box of 100 packages of Ohl's Compressed Easter Egg Dye Lozenges for \$2.50, should have also mentioned the fact that 5 per cent discount will be given on all orders sent him to be shipped through jobbers during the month of January. This discount, with the dozen of Indian corn cure offered free, allows the investment of \$2.37 1-2 to bring a net return of \$8. Place your order now and take advantage of the discount.

METHYL SALICYLATE.

A standard remedy for rheumatism, gout and kindred ills for past years has been Oil of Wintergreen, originally obtained by distillation of the leaves of the Gaultheria Procumbens or of what was popularly called the "Chuckerberry plant." This was subsequently superseded by a product obtained by distillation of the bark and twigs of sweet birch, which being cheaper to obtain, practically drove the true oil from leaf out of the market. As both of these products were secured in most cases from farming communities who employed only the crudest sort of apparatus and either through ignorance or indifference exercised no care in its manufacture, their production was characterized by impurities impairing its therapeutic action to a serious extent, and always a source of unreliability and annoyance to the medical profession generally. The dissatisfaction thus created has been allayed of recent years by the appearance of a Synthetic Oil of Wintergreen prepared by the Herf & Frerichs Chemical Co., of St. Louis. The oil manufactured by this firm is a chemically pure Methyl Salicylate prepared in the most skillful manner and containing the same chemical elements and characteristics of the natural oil, but, as previously indicated, in a perfectly pure state. As an artificial product, it naturally met with much skepticism in its earlier history, but repeated experiments rapidly demonstrated its absolute reliability and unvarying efficiency and its undentable merits won immediate recognition. This year it took its proper place in the United States Pharmacopoeia and in writing prescriptions physicians will find it to their advantage to specify the H. & F. brand, while others interested will do well to investigate its comparative advantages.

The advertisement that brings the most returns to the advertiser, says the Atlanta Herald, is the one that, on the face of it, shows that it is an advertisement. It is a notice plainly describing what you are offering to the public. The chances are that those who use these means to reach the public may be wearing diamonds when the man who tries to sneak his advertisement into a description of a sea-serpent swallowing an iceberg will be working the brakes on a gravel train.

YOUR "AD."

Isn't that old advertisement of yours in the local paper, announcing that you deal in "pure drugs, chemicals," etc., and "compound prescriptions carefully," a trifle stale? Haven't the people in your vicinity seen it often enough to become fully acquainted with the facts. Isn't there danger that they will become tired of glancing at this statement regarding your business, which after all means nothing in particular. You paint your store, wash your windows, rearrange your stock, and buy a new suit of clothes occasionally. People notice these little things and nod approvingly. Do you not think a change in that old "ad" of yours would also please them? Let the patent medicine almanacs keep up this style of printing an old-fashioned advertisement for you on the back cover, a style, by the way, which can only attract attention by spelling your name wrong, but when you pay cold cash for having your name in print don't let the impression get abroad that you do not care enough about your advertising to keep it fresh and say something which people will care to read. There is danger that your style of advertising will in a manner become associated with the character of your goods.

RESULTS OF ADVERTISING.

An item from an English journal, the Manufacturing Chemist, is being reprinted in American journals as an argument on the profits of advertising. According to the journal quoted, an individual announced in one of the London daily papers the arrival of a son and heir. He had no idea of the number of friends he possessed and was, therefore, deeply astonished at the congratulations which poured in upon him from various commercial houses, many of them sending him presents as well. He received about a dozen different kinds of soap, a number of samples of infant foods, three bottles of beef extract, a powder puff and seven boxes of violet powder, eight babies' bottles, three elaborate works on "How to bring up your children," specimens of linen and flannel for infants' attire, and advertisements of everything a baby could possibly need. There came, too, proposals from a dozen insurance companies relative to insuring the life of the baby and the whole family at especially advantageous rates, prospectuses from a Californian emigration society, anxious to ship the baby and the rest of the family to California at the lowest rates, circulars from private gentlemen who wanted to lend any sum of money on no security whatever, together with advice and good wishes enough to last a person a hundred years.

MAGAZINES.

The following is a brief mention of the important features of the January magazines:

The Atlantic Monthly is particularly strong in fiction, which includes the opening chapters of Mrs. Deland's new novel "Philip and His Wife;" "The Only Rose," by Sarah Orne Jewett; "Wolfe's Cove," by Mary Hartwell Catherwood, and chapters of "His Vanished Star," by Charles Egbert Craddock. A delightful study of nature is found in "From Winter Solstice to Vernal Equinox," by Edith M. Thomas. "Admiral Earl Howe," by Captain Mahon, throws much light upon the character of a conspicuous figure of our revolutionary war. J. H. Denham contributes an interesting article upon General S. C. Armstrong, of Hampton Institute fame. Literary students will find much of interest in "Letters from Coleridge to Southey," "Talk at a Country House," by Sir Edward Strachey, and "The Transmission of Learning Through the Universities," by Prof. N. S. Shaler.

Outing for January is a holiday number and is a gem of artistic elegance. Its contents are: "The Hammock's Complaint," by Ella Wheeler Wilcox; "A Skating Song," by Charles G. Rogers; "Ivan of the Mask," by Ella Lorraine Dorsey; "A Winter Picnic," by Van Eps; "A Xmas Fox-hunt in Old Virginia," by Alex. Hunter; "Nomads of the North," by C. J. C. Hynes; "Winter Fish-Spearing," by E. W. Sandys; "Following Dickens With a Camera," by H. H. Ragan; "A Winter Regatta in Aztec Land," by Arthur Inkersley; "Crossing the Simpson Pass," by Annetta J. Halliday; "The House on the Lone Tree Meadow," by H. P. Beach; "The Land of Josephine," by W. L. Beasley; "Lenz's World Tour A-wheel," "Sketches from the Nile," and the "National Guard of Pennsylvania," by Capt. C. A. Booth.

The complete novel in Lippincott's is "The Colonel," by Harry Willard French, and Gilbert Parker supplies the opening chapters of a serial story, "The Trespasser," which will run through six numbers of the magazine. James Reeve Knapp in an interesting paper corrects many wrong impressions, and gives much new information regarding "The Peninsula of Lower California." Under the title "A Juvenile Revival," Thomas Chalmers celebrates the "Christian Endeavor Era." Frank Shelley writes of "Early Marriage Questions," Charles Morris of "The Twentieth Century," and in "Talks With the Trade," F. M. B. answers some questions of young writers.

The table of contents of The Popular Science Monthly shows a literary feast which few will desire to miss. The titles are mostly explanatory and are as follows: "The Ethics of Tribal Society," by Prof. E. P. Evans; "Night Hawks and Whelp-poor-wills," by Dr. R. W. Shufeldt; "Recent Railway Disasters," by Lafayette C. Loomis; "Evolution in Professor Huxley," by St. George Mivart; "How the Sea is Sounded," by G. W. Littlehales; "Uncle Sam's Life Savers," by Frank G. Carpenter; "Emotions and Infection," by M. Ch. Fere; "Window Lights and Their Value," by Prof. J. L. Greenleaf; "Speech for Deaf Children," by Lillie E. Warren; "Logical Method in Biology," by Frank Cramer; "Legal Preventives of Alcoholism," by M. J. Berkeron; "Past and Future of Aluminum," by M. J. Fleury; "Elisee Reclus and His Opinions," by Helen Zimmern,

and "Invention and Industry at the South," by Barton H. Wise.

The literary features of The Century admit of a classification which make the number one of great importance. Art is represented by a paper on Franz Hals, the great Dutch painter, by T. Cole. Literature, proper, is represented by "The Function of the Poet," by James Russell Lowell; "George Sand," by Madam Blanc, and "Andrew Lang," by Ibrander Matthews. In the department of music are found, a paper on Schumann by Edvard Grieg, and one on "Indian Songs," by Alice C. Fletcher. "Public Questions" embrace "Military Instruction in Schools and Colleges," by ex-President Harrison; "The Garfield-Conkling Controversy," by ex-Senator Dawes; "The Silver Side of the Question," by C. S. Thomas, of Denver, and "The New Abolition," an editorial denouncing the apollis system. "Pudd'head Wilson," by Mark Twain; "Captain Jerry," by H. S. Edwards; "A No-Account Creole," by Kate Chopin, and "Out of Her Class," by C. B. Davis, are the features of the department of fiction. Sport and adventure are represented by "The Vanishing Moose," by Madison Grant; "A Journey to the Devil's Tower," by Thomas Moran, and "Life in a Lighthouse," "The Bible and the Assyrian Monuments" is the title of a scholarly article by Prof. Jastrow, of the University of Pennsylvania.

St. Nicholas is also a holiday number, and as such it partakes of the character of the season, and is loaded with good things. Rudyard Kipling gives us, from his Indian literary storehouse, a story of "Mowgli's Brothers;" Frank R. Stockton writes of the City of St. Augustine. "How Paper Money is Made," is the title of an interesting article by Clifford Howard, and that upon "Stamp Collecting," by Crawford Capen, is sure to find a large and appreciative audience. Palmer Cox's "Brownies" have always been objects of interest and admiration, and there will be much interest evinced in the article in this number giving the inside history of their development. Other articles of interest are "The Little People from Java," by W. A. Rogers; "How the Secretary of the Treasury Once Played Santa Claus," and the monthly installments of the serials, "Tom Sawyer Abroad," by Mark Twain, and "Toinette's Philip," by Mrs. C. V. Jamieson.

The salient points of the Ladies' Home Journal are woman's connection with the stage, and the education of girls. In the former category is an article by Madame Adelaide Ristori, and one by the well-known dramatic manager, A. M. Palmer. In the latter is a strong article by the editor, Edward W. Bok. The second installment of "Pomona's Travels," by Stockton, is delightfully interesting and William Dean Howells tells of his acquaintance with Don Quixote in "My Literary Passions." "Packing a Trunk Well" is the title of an article by Ruth Ashmore, which will probably be read with absorbing interest, especially by the sterner sex. The four hymns for which prizes were offered last year appear in their entirety in this number. Mothers will be interested in Miss Scovill's "Kindergarten at Home," and the exquisitely designed cover by Wenzel will certainly please the artistically inclined.

The pages of the North American Review are quite appropriately replete with discussions of the questions of the day.

Representative Wilson explains the reasons for the proposed imposition of an income tax on corporations. Ex-Speaker Reed discusses the proposed tariff legislation. Comptroller Eckels gives his ideas upon the prevention of a money famine. Frederick R. Coudert, the well-known lawyer, presents a paper upon the "Hawaiian Question." The Governor of Colorado discusses the effect of recent legislation upon the silver states. Brazilian Minister Mendonca gives an interesting account of the growth of "Republicanism in Brazil." "The Roman Catholic Church and the School Fund" is the title of an article by Bishop Doane, of Albany. The Rev. Dr. Briggs discusses modern biblical criticism in connection with the Sunday school and Prof. Abram S. Isaacs, editor of the Jewish Messenger, contributes an article on the "Glorification of the Jew." Other articles of general interest are, "Is the Value of Our Past Cruisers Overestimated," by Rear-Admiral Ammen, U. S. N.; "Intercollegiate Foot-Ball," by Drs. White and Wood, of the University of Pennsylvania; "Afterthoughts of a Story Teller," by George W. Cable; "Wagner's Influence on Present Lay Composers," by Anton Seidl, and "Diners and Diners," by Lady Jeune.

CONSULAR REPORTS.

The volume of consular reports, issued by the State Department for December, 1893, contains an able article reprinted from "The Revue du Commerce Extérieur," Paris, entitled "How the Government Should Aid Commerce." The writer says: "The first duty of the state to our merchants is to inform them of the condition of foreign markets, of their needs, their usages, the methods employed by the countries that import our products, and, consequently, of the means to be employed by our citizens to open new channels or to extend their relations. This information can be furnished only by consuls, Chambers of Commerce, or by persons charged with a special mission having for its object the study of such and such a country, or such a market." After commenting upon the character of the reports furnished by consuls, and noting their lack of uniformity in methods of preparation and presentation of statistics, a plea is advanced for the establishment of a special service in the ministry of commerce whose duty will be to give immediate answers to inquirers seeking information in relation to foreign trade, or to keep such information in a manner to make it available to the masses.

This agitation of an important subject seems quite pertinent and a similar consideration of the question by the merchants of our own country might result in considerable advantage. It is quite obvious that our consular service enlists the services of many able men, as is shown by the comprehensive reports which are issued by the government each month, and criticisms upon the weak spots in the service certainly come with poor grace from a people who, after paying a good salary to officers of the government for the collection of the information, display a decided indifference when it comes to reading the reports and making use of the information contained in them. There seems to be an impression abroad that the opposing political parties of this country, controlled as they are by different ideas as to legislation concerning commer-

cial affairs, are apt to send as representatives to foreign countries men whose ideas upon trade relations necessarily coincide with those of their party, and that statistics and information furnished by them are likely to be influenced with prejudice or at least colored to further party interests. In fact our consular service is regarded as part of a political machine. We believe there are enough exceptions to this ruling idea to prove the negative side of the question, and that the failure, if any, in our consular service is due to want of appreciation on the part of the public for whose benefit it is maintained. There is one agency in this country which has done more perhaps in utilizing the labors of our foreign representatives than any other, and that is the trade journal. While many of these have for years aided the people by disseminating knowledge of this character the practice is not as universal as it should be, and its further extension would be an undoubted benefit. It is true that these reports are furnished freely by the government, but for some unaccountable reason the average government report is not regarded with favor by the average citizen, and the consular reports as a rule cover a field too diversified to render them interesting to the person who cares for but one subject. The class or trade papers, therefore, seem to be the proper channels for the publication of information bearing upon the particular interests of their subscribers. With this idea in mind the Era would suggest that consuls be instructed to give special attention to matters relating to the drug trade in the countries to which they are sent. Methods of handling indigenous products with descriptions of their manner of cultivation, marketing, extent of production, etc., are always interesting and of decided value. Let papers of other trades pursue a similar course in the way of suggestion, and our reports from foreign countries will begin to pay dividends. And while our various commercial bodies are resolving that a department of commerce would be a desirable addition to our list of government portfolios let them also suggest the establishment in connection therewith of a bureau of information on the plan mentioned by our French friend.

Do not be above your business. He who turns up his nose at his work quarrels with his bread and butter, says the Newsman. He is a poor smith who is afraid of his own spark. There is some discomfort in all trades. If sailors give up going to sea because of the wet, if bakers left off baking bread because it is hot work, if tailors would not make our clothes for fear of pricking their fingers, what a mess we would come to. All trades are good to good traders. Lucifer matches pay well if you sell enough of them. You cannot get honey if you are frightened at bees, nor plant corn if you are afraid of getting mud on your boots. When bars of iron melt under the south wind, when you can dig fields with toothpicks, blow ships with fans, manure crops with lavender water, and grow plum cakes in flower pots, there will be a fine time for dandies; but until the great millennium comes we shall have a great deal to put up with.

Jno. W. Perkins & Co., wholesale druggists of Portland, Me., were damaged by fire recently to the extent of \$3,000. The fire originated in the laboratory.

PATENTS,

TRADE-MARKS AND DESIGNS.

From U. S. Patent Office Gazette.

TRADE MARKS.

- 23,665—Sheep-Dips.—Newton, Chambers & Company, Limited, near Sheffield, England. The word "Noxona."
 23,670—Ointment or Jelly for External Use.—Charles J. Uhl, Chicago, Ill. The representation of a horseshoe, the letters "U. H. L." and the word "Jellyine."
 23,671—Liniment.—Dominique May, New Orleans, La. The representation of three diamond or lozenge cone-shaped figures.
 23,672—Liniment.—James E. Rork, Eau Claire, Wis. The word "Dadger."
 23,673—Remedy for the Cholera.—Stephen Horace McKellips, Antioch, Cal. The representation of a train of cars attached to a locomotive under a full head of steam.
 23,674—Remedies for Cramp, Colic, Cholera and Catarrh.—Lacey E. Peyton, Omaha, Neb. The representation of a horseshoe magnet having electric flashes issuing from its poles and the words "Magnet Pain."
 23,675—Chloride of Sodium or Common Salt.—Thomas Higgin & Company, Liverpool, England. The word "Wind-sor."
 23,680—Extracts of Beef and Pork Products, Including Lard.—Nelson Morris & Co., Chicago, Ill. The representation of three old women in the act of drinking and conversing, and the words "The Talk of the Town."
 23,683—Bonbons.—The Walter M. Lowney Company, Boston. The word "Lowney."
 23,686—Oleaginous Food Substances.—N. K. Fairbank & Company, Chicago, Ill. The representation of the head and neck of a steer or bovine, partly encircled by the branches of the cotton-plant.
 23,688—Cooking-Oil.—Merchants and Planters' Oil Company, Houston, Tex. The words "Diamond Butter Oil."
 23,689—Soda-Water and Other Carbonated Beverages.—Crystal Spring Bottling Company, Barnet, Vt. The representation of a calla and the word "Purity."
 23,700—Tonic.—Joseph Triner, Chicago, Ill. The words "Triner's Bon Camp" and the figure of a shield bearing a monogram of the letters "J. T."
 23,702—Remedies for Cholera Morbus and Similar Diseases.—George S. Bartles, Caribou, Colo. The figure of a star having a ring at each point and inclosing at the center the word "Star."
 23,703—Liniments and Scrap Tinctures.—J. W. Garney & Son, Scranton, Pa. The abbreviation and word "Dr. Galvin's."
 23,704—Vermin Eradicators.—Seymour W. McTaggart, Lancaster, Pa. The word "Lightning," the conventional illustration of a stroke of lightning, and an insect or bug in an attitude as if struck by lightning.
 23,705—Insecticides.—Daniel J. Lambert, Warwick, R. I. The portrait of the registrant and the words "Death to Lice."
 23,706—Insecticide, Disinfectant and Cleansing Liquid.—George H. Smith and Theodore W. Day, South Orange, N. J. The word "Killmquick."
 23,707—Mordants.—The firm of Th. Goldschmidt, Essen-on-the-Ruhr, Germany. The initial letters "T" and "G" arranged in the form of a monogram.
 23,708—Writing paper and Envelopes.—George B. Hurd & Co., New York, N. Y. The words "Highland Heather."
 23,709—Writing Paper and Envelopes.—Worcester Envelope Co., Worcester, Mass. The words "Alba Linen."
 23,714—Remedies for Worms, Coughs, Catarrh and Dyspepsia, and a Liniment.—The C. G. Clark Company, New Haven, Conn. The word "Coe's."
 23,715—Remedy for Diseases of the Liver, for Dropsy, Costiveness and Dyspepsia.—Leopols Gerstle, Chattanooga, Tenn. The words "Saint Joseph's Liver Regulator" and the representation of a female in a slooping position gathering herbs.
 23,716—Medicine for the Cure of Alcoholism.—New England Cure Co., Providence, R. I. The words "New England."
 23,717—Tonic Medicine.—Josiah S. Bailey, Bonham, Tex. The representation of a globe bearing the picture of a young lady's head and shoulders.
 23,718—Cordials.—Gustav Budde, Radevormwald, Germany. The representation of a man wearing a dressing-gown, rising from an arm-chair and having one hand extended to another man who holds aloft a bottle.
 23,719—Natural Spring Water.—Franklin H. Orvis and Sarah M. Orvis, Manchester, Vt. The word-symbol "Equinox."
 23,720—Preparation for Improving the Taste of Coffee.—Otto E. Webber, Radebeul, Germany. The words "Carlsbad Coffee Spice" in connection with the representation of a portion of a globe and the American shield and eagle on said globe.
 23,721—Condensed Milk.—The Norwegian Milk Condensing Company, Limited, Christiania, Norway. The word "Viking."
 23,723—Tooth Paste.—Joseph Spyer, Chicago, Ill. The word "Mexican" arranged within a circle.
 23,724—Cleaning and Polishing Preparations.—Friedrich Adolph Schulze and Gustav Adolph Philipp, Leipsic, Germany. A representation of the globe bearing the lines of latitude and longitude.
 23,734—Nursing Bottles.—Wm. M. Decker, Kingston, N. Y. The word symbol "Hygela."
 23,742—Mineral Water.—Burke Christman, Harrisonburg, Va. The word "Massanetta."
 23,476—Medicinal Whisky for Lung Diseases and Debility.—John F. Broderick, St. Paul, Minn. The representation of a Maltese cross.
 23,747—Preparation for the Hair.—Meta S. Kelso, Stamford, Conn. The representation of a fleur-de-lis.
 23,748—Remedy for Cancers.—Mary A. C. Millen, New York, N. Y. The word "Mirabills."
 23,749—Remedies for Rheumatic, Nervous and Venereal Diseases, and Other Disorders of the Skin and Blood.—Waldo L. Curtiss, Winsted, Conn. A monogram composed of the letters "W L C" placed upon a disk having a serrated border representing a star of many points.
 23,750—Liver Powders.—Lawrence Alexander, St. Augustine, Fla. The letters "C S A."
 23,761—Unfermented Wines.—C. H. Howe & Co., Denver, Colo. The word "Vindone."

THE MARKETS.

New York, January 10, 1894.

A dull, featureless market prevails. The improvement in business which was expected to occur after the first of the year has not been realized, and present predictions now extend the period to the first of February, as it is thought that it will take the jobbers until that time to get their affairs of the past year straightened out. But a good trade in the near future is confidently looked for even by the most conservative, and the argument, oft-repeated during the past three months regarding the depletion of stocks in both wholesale and retail hands, gains force as time passes. Some attribute the dullness to tariff legislation, while others lay it to the absence of good cold weather. The latter reason is undoubtedly an important one, as the business-stimulating effects of cold weather are well known. Lack of business has caused prices to remain without change, and only a few advances are reported.

Opium.—At present writing has advanced a point and the market seems a shade firmer. No business of any moment has been transacted and probably will not be until the see-saw movement in prices ceases. Reports from Constantinople and Smyrna, indicate considerable buying for the American market and in consequence prices there have advanced and the market has taken on a firm tone. This has also had its effect on the London market, where prices have also advanced, but the business is reported light; \$2.25 is the asking price in case lots.

Powdered Opium.—Remains unchanged at \$3.10 to \$3.25.

Quinine.—Business still continues good, the prevalence of "La Grippe" keeping up a good demand. Speculative interest in this article seems to have ceased and supplies are passing only into the hands of dealers or for actual sale. The instability of this product has caused it to be added to the list of articles to be let alone. Prices are without change; 221-2c for foreign, 2c for American in bulk lots.

Alcohol.—Is sought for in small parcels only and in quantities of this kind is in fair demand without change of prices; \$2.24 to \$2.28 being the ruling quotations.

Wood Alcohol.—A reduction of 10c per gallon on the lower grades is reported. Prices are as follows for 5 to 10 barrel lots: 5c per cent, 90c; 97 per cent, 95c. Alcoholene is quoted at \$1.50 per gallon and the demand continues good as there seems to be a disposition on the part of many dealers to sell wood alcohol in place of grain alcohol and many people in consequence are becoming educated in its use, who formerly used the grain for burning purposes.

Ergot.—Is without improvement in demand. Some large purchases and shipments for this port are reported to have been made at Hamburg. German is quoted at 30 to 35c, Spanish 35 to 40c.

Bleaching Powder.—Is only in fair demand. Stocks are very light and the market is a little firmer.

Oxalic Acid.—The firm tone of the market previously reported continues. English in casks is held at 8 to 9c.

Chlorate Potash.—Although the market abroad has advanced, prices here are without change; 14 3/4 to 16 1/2c is asked for kegs.

Borax.—Business at first hands continues good with a fair demand for jobbing

parcels. An advance in prices is looked for but current quotations are without change. California refined in casks is quoted at 8 1/2 to 9c, city refined 9 to 9 1/2c, powdered 8 1/2 to 9c.

Sulcaline.—Prices remain at previously quoted prices, with fair demand.

Chloric Acid.—Is in light demand. Prices remain unchanged.

Cocaine.—Is meeting with fair demand. Prices remain without change.

Menthol.—Is high and scarce. Stocks abroad are also light. Prices are held firm and there are few sellers; \$6.50 to \$8 is asked as to brand and quality.

Caffeine.—Shows a further advance in value and holders are now firm in their demand; \$2.40 to \$2.75 is asked.

Arsenic, White.—Market is very firm and stocks scarce.

Alum.—Is in light demand and orders are for small quantities only. Buyers seem reluctant in placing orders and are looking for a reduction in price; \$1.95 to \$2.15 in original packages is quoted.

Cream of Tartar.—Continues in light demand and seems to be passing out in quantities for immediate use only. Prices are without change; 18 1/2 to 19 1/2c for powdered in casks.

Brimstone.—While no advance in prices has been noted here, prices abroad have advanced and the market is very firm. The stock of seconds is said to be very scarce.

Quicksilver.—Has declined owing to a disagreement among the members of the California Association. As a result of the drop in prices, business has been stimulated and goods are freely offered at 48 to 50c.

Corrosive Sublimate.—Has been reduced owing to the decline in quicksilver; 60 to 65c is asked in jobbing quantities.

Blue Mass.—Has also declined; 69 to 75c is quoted.

Calomel.—Is in fair demand. The reduction in the price of mercury has helped to stimulate business for this article also; 78 to 85c is asked in wholesale quantities.

Red Precipitate.—Is in fair demand at reduced prices; 83 to 87c is quoted; white at 29 to 40c.

Nitrate Silver.—Has been reduced by the manufacturers; 48 to 50c is quoted for jobbing quantities.

Glycerine.—Shows a further decline and is offered at figures that favor buyers; 12 1/2c is quoted in drums, 13 to 15c in barrels, 15 1/2 to 16 1/2c in cans.

Gum Asafoetida and Aloes.—Are without change in prices.

Gum Chicle.—Is without special features of interest and values remain unchanged.

Tar, Barbadoes.—Has declined and is now freely offered at 40 to 45c per gallon in original packages.

Cod Liver Oil.—Shows a light falling off in business. The market is firm and with a revival of business, an advance in prices is looked for. Nominal quotations are \$20 to \$22.50, as to brand.

Castor Oil.—Prices are firm, demand light and ruling values as follows: Pure oil, 15 to 16c in barrels; 16 to 17 1/2c in cases; No. 3, 12 to 12 1/2c in barrels; 12 1/2 to 13 1/2c in cases.

Castoreum.—Scarce and high is the report given; \$3 per pound seems to be the inside quotation.

Castile Soap.—Best grades of white are still somewhat scarce; 10 1/2 to 11 1/2c is asked in round lots; mottled, 6 3/4 to 7 3/4c.

Balsam Copaliba.—Prices continue firm,

but a light business is reported. Stocks continue light with no expected arrivals. Prices remain as previously quoted.

Balsam Fir.—An unusually firm market is reported with a very small available stock on hand and there are few offerings below \$4 in barrels; \$1.25 to \$1.50 is asked by the gallon.

Balsam Peru.—Is dull and featureless without business of importance; \$1.60 is quoted.

Balsam Tolu.—Is without change and business is light for this season of the year. Inquiries are for small parcels only, at 27 to 35c.

Oil Peppermint.—Is without material change. The market is firm and values are well maintained. Previous quotations are without change.

Oil Cassia.—Is only in ordinary demand, quotations ranging from 60c to \$1.05.

Tonka Beans.—Remain firm. Buyers seem to be holding off for lower values, but holders seem unwilling to make concessions and little business is being done. Angostura are quoted at \$2.25 to \$2.50 in jobbing quantities.

Vanilla Beans.—Are high with a very firm market, with indications pointing to higher prices.

Chamomile Flowers.—Are in good demand. Prices remain without change.

Saffron, American.—Shows a slight advance and quotations now range from 40c to 55c; Valencia, \$5.75 to \$5.

Senega Root.—Is without inquiry and is freely offered at 45c to 50c.

Sarsaparilla.—Is in light demand and no change in prices is reported.

Canary Seed.—Continues in firm demand at values previously reported.

In their market report dated January 2, 1894, Morrissin, Plummer & Co., of Chicago, say: "Manufacturers of Acetanilid have reduced their prices and the article is now quite cheap. Balsam Fir, Canada, has advanced, being quite scarce. The new crop is said not to exceed fifty barrels. Since our last issue we have been advised by Powers & Weightman and Mallinckrodt Chemical Works, that they will be unable to furnish any Bismuth Sub-gallate, except the imported article, known as "Dermatol." The process of manufacture now in use is patented. Caffeine has advanced 10 to 15 per cent. Menthol supplies are extremely limited, and prices range from \$5.50 to \$6.75. Oil Lemon is lower and weak. Good Seal is tending upward. Florentine Orris is somewhat higher. Canary seed is firmer, Fennel a trifle lower, flax higher and bemp easier. The brands of all regular corrodors of white lead have been reduced to six cents per pound in 500-pound lots, with 2 per cent discount for cash in fifteen days."

On account of the difficulty in obtaining pure olive oil for table use in Germany, considerable attention is being directed to oils obtained from bechnuts and the seeds of the linden tree as substitutes.

"I believe in trying to put as good a face as possible on everything in times like these, Maria," said Mr. Billus, looking again at the bill that had just been brought in, "but it does seem to me that \$3.75 for complexion wash in one month is putting it on a little too thick!"—Chicago Tribune.



IRA REMSEN.

PROF. Ira Remsen, of Johns Hopkins University, Baltimore, Md., is probably the best known of American chemists in purely theoretical chemistry and advanced organic research. He is the editor and was the founder of the American Chemical Journal, which is to the chemical fraternity in this country what the *Berichte d. d. chem. Gesellschaft* is to the scientists of the old world. For this publication he has written many scientific papers to record the results of personal investigations in both applied and theoretical chemistry. He is of greater fame as an author of several books, the product of his pen, which have won high standing. His "Principles of Theoretical Chemistry" is of special note for having gained the approval of the entire chemical world. It is a standard text

book in many institutions, and has undergone translation into several languages. Enumeration of but the more important of his contributions to chemical literature would require more space than is at disposal. Prof. Remsen is purely an American product. He was born in 1846 in New York City, and, with the exception of a few years in his boyhood spent in the country, he gained his education in the schools of that city. He is a graduate from the College of the City of New York, and from the College of Physicians and Surgeons. Medicine was given up for chemistry, and he spent the years from 1867 to 1872 in study at German universities at Munich, Goettingen and Tuebingen, under Liebig, Volhard, Woehler and Fittig, after receiving his Ph. D. at Goettingen serving two years as general assist-

ant to Fittig at Tuebingen. The year 1872 found him back again in America, and as professor of chemistry and physics at Williams College. During the four years following he came prominently into notice as a writer. In 1876 he accepted the chair of chemistry in Johns Hopkins University, and still occupies it, despite urgent invitations to other institutions, a recent and notable one being to the new University of Chicago. As a writer, teacher, lecturer, experimenter and practical workman he is, in all, a success. His lectures are a treat from the entertainment standpoint alone, and his laboratories are thronged with investigators, animated with the enthusiasm of their preceptor. If American chemists can "point with pride" to any particular representative, Ira Remsen is assuredly the one.

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EDITORIAL.

CHEMICAL INDUSTRY OF THE U. S.

The chemical industry of the United States is believed by a large proportion of the people not to cut any considerable figure in industrial affairs. But the information set forth by Mr. Bower is evidence that we have been laboring under a gross misapprehension, for the figures he quotes show a very satisfactory aggregate in financial importance in this great branch of manufacturing activity. While, as pointed out, chemical manufacturers have labored under many disadvantages, among which may be enumerated certain operations of tariff regulations, and we would mention particularly the high tax upon alcohol, still it is not surprising that, with our great natural resources and enormous consumption of products in this line, the industry of the manufacture of heavy chemicals has attained so pleasing a proportion. But we are still obliged to import vast quantities and the opportunities for the establishment of productive plants have but just begun to be snapped up. Undoubtedly the next decade will show particularly pleasing increase in the quantities and values of the products enumerated, together with the establishment of plants to develop resources as yet unworked. The figures showing the importance of pharmaceutical preparations are by no means insignificant, in fact they occupy the favored position when placed in comparison with those other countries.

A PERFUMER ON THE TARIFF.

The paper in our Trade Department relating to the proposed tariff reconstruction is of a practical nature, and from a practical business man. It is moderate in tone yet strong in argument, and the points made are brought forth with clearness and decision. Speaking from his own standpoint as a perfumer, the writer represents the views of his associates in this branch of manufacture by making the very reasonable request that, if raw materials are to be taxed, finished foreign products should be proportionately taxed. As proposed by the bill now stirring up so much discussion among our brainy law makers, flower pomades, which are the raw materials of the perfumer's art, are to bear a customs tax, while the finished perfumes coming from the same country whence emanate the pomades, are allowed free. This is certainly an injustice to American perfumers, and, we should think, need but to be called to attention to receive correction.

Mr. Ingram further voices the sentiment of all business men in all branches of trade when he states that the best thing for this country would be to leave the tariff alone for a few years and not tinker and rearrange it every four years.

Commercial industries must be allowed time to adapt themselves to conditions produced by any tariff, high or low, and once having adapted themselves they should not very soon be obliged to suit themselves to a new set of conditions. The financial stagnation from which the country has suffered the past few months has been due entirely to the uncertainty regarding the outcome of legislation which, whatever it might be, would affect business interests in all directions. We commend Mr. Ingram's paper to careful perusal.

POISONED ALCOHOL.

The report in our News Department last issue of a case where a Massachusetts druggist sold poisoned alcohol, which later being drunk by a number of tramps caused the death of two of them, bears some significance other than as a deplorable accident merely. The question where the blame of the casualty should be placed is a little hard to decide. The clerk who sold the alcohol seems to have considered himself on the safe side by placing it in a substance which would render it unfit for drinking, and he further seems to have secured himself by adopting all necessary safeguards in the direction of poison label, caution to the customer, etc.; but is one justified, under any circumstances, in placing a violent poison in alcohol, which is so apt to be used as a beverage? The caution of the pharmacist may be forgotten, a label is easily removed or rendered illegible or overlooked, the bottle may fall into the hands of those wholly unfamiliar with the circumstances attending its purchase, and there are, in short, so many possibilities of serious results arising from such a practice that it seems well to call this particular case to the attention of pharmacists to act as a serious warning to them. Alcohol can be rendered unfit to drink in other ways than by poisoning it, and though we would not wish to add to the sorrow of the clerk who dispensed this poisonous draught, still we do not feel that he is entirely without responsibility in the matter. If any doubt as to the intention of the purchaser arises, the seller assumes most heavy responsibilities in pursuing such a course as was followed in this instance. He should either refuse absolutely to dispense the alcohol, or he could add to it substances of non-toxic nature which would effect the end in view—that of rendering the liquid distasteful as a beverage.

SHOULD THE DOCTOR SUPPLY HIS OWN MEDICINES?

It is very pleasing to find one medical journal, which represents a high class of patronage among physicians, plainly stating that it is not best in most cases for the practitioner to supply his own medicines. The journal in question, *Medical and Surgical Reporter*, states very distinctly that, in the present state of medical affairs, where the community is amply supplied with competent pharmacists, the practitioner has no right to compound or carry drugs to dispense. The trained, qualified pharmacist is worthy of his hire. Pharmacy and medicine, while closely allied, are yet separate and independent branches of the healing art. As a rule, a physician who dispenses medicine loses caste, thereby doing an injustice to his patient and ap-

propriating to himself what justly belongs to the druggist. In regard to the argument that the physician saves the patient the expense of prescriptions and thus retains him, it is advanced that, in many cases he might as well dose his patient with chips or pebbles as to give him the stale, petrified tablets which by long keeping have lost their potency. Further, the patient has no respect for the preacher-practitioner combination, not any faith in the walking apothecary shop, and when he is really seriously ill will pay only for the straight article. These are strong words from our medical contemporary, but we are glad to give them republication, especially the advice that the shoemaker should stick to his last. Pharmacists as a class are appreciative, and no physician ever patronized one without being repaid twofold. If physicians desire to stop counter prescribing, they must give to the honest pharmacist what is really his due, and these words from an influential medical journal will do much to bring about a better state of affairs and to produce a sentiment more desirable than that which has found utterance in many medical periodicals concerning this question.

EXAMINATION QUESTIONS.

Not every would-be druggist can attend a college of pharmacy, but he must bring evidence before the Board of Pharmacy that he is competent to discharge the duties of his profession. To do this involves the acquisition of a certain fund of education, and the majority find that they must be self-educated, and any aid to the attainment of this education is highly appreciated. This number of the *Era* inaugurates a department which we are sure is well calculated to serve a very large proportion of our readers. Its object is to present carefully selected questions whereby the reader can test the quality of his information, and may have indicated to him the direction in which study can best be prosecuted. These questions are selected with the idea that to answer them will require some search of reference works, some practical experimentation, or the exertion of one's reasoning faculties in some particular direction. As a rule, they are to be questions which involve some basic principles or which have direct application to the practical work of the drug store. Their range will be over the several branches necessary to complete equipment for pharmacy, as chemistry, botany, materia medica and the like. It is believed that whoever will apply himself to studying out the answers to these questions as they are presented, will, if not already in possession of it, quickly attain a most valuable store of information which he will find of service throughout his professional career. Incidentally it may be mentioned that many of these questions are of necessity very similar to those which constitute the majority of the questions propounded by the Boards of Pharmacy, and in this way are of service to the intending applicant for examination.

There are a large number of young men who are anxious to attain the necessary qualifications for entering the pharmaceutical profession, but whose prospects for attending a college of pharmacy are very dark. To this class these series of examination questions cannot fail to be of

benefit as testing not only their present acquirements, but in stimulating them to systematic study. It is not expected or believed that these questions can take the place of systematic study, but they will serve most valued purpose in testing the worth of the results attained by the student.

Each series of questions will be supplemented in a later issue by complete replies, which will embody the answers sent in by correspondents, with such amendments and alterations as are necessary in each case. We want readers, too, to send in questions to which they desire answers, and, in short, this department is to serve as a general exchange bureau in the direction indicated.

THE DRUGGIST AS A BUSINESS MAN

The question which now seems uppermost in the professional mind is that of higher education. There is an unmistakable tendency in our schools toward an extension of both the time and the curriculum and all reports that come to us from the various pharmacy boards record the adoption of more stringent methods of examination, which will call for more extended attainments on the part of the candidates for registration. There is no prospect that the path to the practice of pharmacy will ever be less difficult than it is at present. The indications all point the other way. While this good work is going on and all efforts are concentrated to one end, is there not danger that some of the essential qualifications for the practice of pharmacy will be overlooked? Is there not danger that the graduate will become so well grounded in the decimal scale of grams and centigrams that the decimal scale which runs dimes into dollars will fall into neglect? In other words how is the pharmacist to obtain a business education? In a business world, where the failures are said to bear a ratio to the successes of 9 to 1, is it not within the bounds of propriety to insist upon an acquaintance with the rules which govern commercial transactions? It may be said that such knowledge may be gained from a preceptor. But are the majority of preceptors competent instructors in such matters? The fact that a man is in the drug business and has an apprentice cannot be accepted as evidence that he is a successful business man. There are many brilliant successes in the ranks of the retail druggists, and there are quite a number of equally brilliant failures, and it is feared that the former are not numerous enough to furnish separate educational institutions for the instruction of the throng of embryo proprietors, upon whom we must depend for the future conduct of our drug stores. The subject is one which may well engage serious attention. It is believed that there are many successful druggists who take pride in their success, and are disposed to give others the benefit of their ideas. The druggist as a business man is a subject which is far from exhausted. The purchase of goods and the selling of the same, bookkeeping, with its debts and credits, the arrangement of the store, the advertising, the treatment of clerks and customers, and the stoppage of many little leaks in the money drawer are themes upon which much can be said and to which thorough attention should be given.

PRELIMINARY EDUCATION.

No more important and vexatious problem is presented for the consideration of colleges of pharmacy and their faculties than this—how much and of what character should be the preliminary education required of matriculants? The question has been variously answered by the various colleges, the result being that we now have no uniform requirements for entrance; the candidate falling at one institution may easily enter another where the examination is easier, or perhaps, as in some colleges, lacking altogether.

Pharmacy is, and should be regarded as, a learned profession, equal in importance to any, and its followers should possess even more than average ability and knowledge. But is it so regarded by the public? Is it not rather looked upon as a trade? Are our colleges working in the right direction? Pharmacy, in its highest significance, embraces a knowledge, more or less comprehensive and exhaustive, of chemistry, botany, materia medica, therapeutics, and the like. Of these branches, chemistry requires a thorough knowledge of mathematics and a mind at once logical and analytical, while for a sound knowledge of botany, materia medica, etc., Latin is absolutely essential. If the student have not this knowledge before entering the college, he will not there obtain it. Nor is he a fit recipient of instruction such as should be imparted by a school of pharmacy. He cannot understand the terse expositions of chemical problems; he learns parrot-like; he speaks of "empyreumatic air"; he acts the part of a sponge, absorbs, assimilates little, easily and rapidly dries up.

The teaching colleges of pharmacy require but little knowledge of mathematics or English, and none whatever of Latin, nor do they teach these branches; but the instruction given is of a character that presupposes such knowledge on the part of the student, and the luckless wight who knows no arithmetic or Latin, but who has paid his money for a pharmaceutical education, at the final examination for graduation has fired at his unfortunate head problems asking the percentage composition of complex chemical compounds, the correct Latin phraseology for a prescription, and many others, all of which, to him, are not Latin merely, but Greek. He fails in his examination, and goes away with the feeling, in some respects a just one, that his time and money have been obtained by false pretenses. Or, he succeeds, thanks to the superior knowledge of his neighbor in the examination hall, or to a carefully prepared and successfully concealed "aid," or to some lucky chance, and thereafter poses, and is regarded, as thoroughly posted in pharmaceutical lore. Is he a truthful representative of the science of pharmacy?

Under the present system the boy attends school until the age of fourteen or sixteen, obtaining the usual shallow, superficial knowledge of the customary grammar school branches of study, then spends three or four years in a drug store, meanwhile forgetting nearly all he has learned at school; and finally, by means of his grammar school certificate, obtains admittance to the college. Is such a one likely to become a credit to his teachers and an ornament to his profession?

Much has been said relative to the deplorable lack of general education on the part of the majority of drug clerks and college students. Some have advocated the establishment in the colleges of pharmacy of a chair of English. This or similar procedure would not suffice to correct the evil; it would be the application of the axe to the branches rather than to the roots. Let the college demand of its students sufficient knowledge of those subjects necessary to the proper reception and retention of the subjects presented by its teachers. Let it retain, if it choose, the old and faulty lecture system, but supplement the lectures by thorough, practical laboratory work. One is interested and learns much by witnessing an experiment performed by another, but the knowledge becomes one's own when the experiment is carried out by one's self.

The quiz system of instruction now in operation in several colleges has proven very successful, and is not only a step, but many steps, in the right direction. But how many colleges live up to their promises? They advertise thorough training in chemistry, practical pharmacy, microscopy and the like, but the chemistry offered consists of one or two lectures a week, with, during the year, fifty or sixty hours of work in the laboratory, and instruction in other branches is similarly deficient.

Another defect in the college system is that the college education is but a side issue; it is regarded as simply a means of easily becoming a registered pharmacist. That this is so is evidenced by the oft repeated question: "Of what value is my diploma if it is not recognized by the Board of Pharmacy?" A college graduate who is afraid to appear before the board, but holds up before him his diploma as a shield, is no credit to the institution whose son he is. The student, as a rule, gives but a portion, and that the worst, of his time to his studies. His regular occupation is that of a clerk in a drug store. Five or six hours a week, for six months, are all that he devotes to the acquirement of a "first-class pharmaceutical education" in a college "affording unrivalled facilities" for obtaining the same.

So long as the college work is subordinated to drug store duties, so long will exist this unsatisfactory condition of affairs. On the other hand, when the college accepts none but earnest and able students, and furnishes to them a curriculum which will draw forth their best endeavors, and require their undivided time and energy, then will Ph. G. mean something, represent something, be of value.

What is the remedy? Let the colleges establish a standard of examination for entrance sufficiently high to exclude all not of sufficient ability and attainments to do justice to the instruction afforded. It is objected that there will be a great decrease in the number of students. What if there be? It is better to have a few good students than a multitude of numskulls. If a few of the colleges be forced to close their doors, it but proves that they were founded on the sand, not upon solid rock. But the fear of numerical and pecuniary loss is unnecessary. Records of educational institutions all show that so fast as educational standards have been elevated, just so fast has been the increase in numbers, prosperity and rep-

utation. Offer good goods and you will always find a sale for them, while inferior and fraudulent wares are soon detected and refused.

COURTESY BETWEEN PHARMACISTS IN REGARD TO REFILLING PRESCRIPTIONS.

We have been asked what should be the course of conduct for druggist A to pursue when a customer brings to him a bottle bearing B's label and originally filled after a prescription in druggist B's possession. Should he ask B for a copy of the original prescription, or should he direct the customer to go to B's store, or should he send the bottle to B for refilling and have it charged to his (A's) account?

Without taking into consideration any qualifying circumstances, we should say promptly that the customer should be sent to B. Every druggist naturally considers that prescriptions brought to him for dispensing become, after he has filled them, his own. Should a brother druggist ask for a copy of any prescription for refilling, it is merely a matter of courtesy if his request be granted. It seems very plain to us that, whenever possible, the customer be told that his box or bottle was originally filled by B, who holds the prescription and who should be the one to refill it. We realize that often this course would be inconvenient or distasteful to the customer, but it is without doubt the best plan whenever it can be put into force. However, if the customer cannot be sent to the store, A should himself send to B and have the prescription filled, with a distinct understanding that the profits be satisfactorily divided between the two. It is an imposition for one druggist to ask another for a copy of a prescription without rendering any sort of remuneration therefor. Not only is it an imposition, but it is very unbusinesslike, and frequent repetition is apt to cause bad feeling between those who would otherwise have cause for only friendly relations.

But doesn't the whole trouble arise from a reprehensible practice in itself, prescription refilling?

A little of the British severity as exercised toward the brood of nostrums would not be amiss in this country. In England when a patent medicine kills a person something is likely to result from the happening in the way of prosecution of the responsible parties. In a recent case in Great Britain, however, the magistrate was unable to punish the parties responsible for the fatality inasmuch as it was caused by a patent medicine of American make. This medicine is one which is largely advertised and has time and again been proved to contain large proportions of chloral and bromides, and in this instance an overdose through inadvertence caused death. It will be a good thing for the American public when our law-makers place some sort of restriction on the traffic in secret medicines which contain poisonous ingredients. The so-called soothing syrups for infants have killed many more children than they have benefited, in fact the benefit could easily be shown to be only to the nurse or the mother who wishes to quiet the fractious child.

There is desirable the abatement of a very serious evil which, for a number of

years, has been increasing and adding to the burdens of both jobbing and retail trade. There is, to-day, no uniformity in quality or price of many pharmaceutical preparations, even those which are official in the pharmacopoeia and should be of a definite standard of strength. So-called standard preparations are not standard, for there is no standard apparently. A fluid extract of Ipecac will vary in alcoholic strength, in percentage of extractive, in medicinal value, within limits so widely separated that the purchaser can be guided in his selection only by what he knows, or thinks he knows, of the honesty of purpose and reputation of the manufacturer. The necessity for uniformity of quality in the many lines of pharmaceuticals is urgent. As matters now stand, a certain fluid extract may be purchased at almost any price the buyer chooses, according to the manufacturer selected, and it is fair to presume that low price means poor quality. Could the trouble be remedied by the adoption of uniform prices?

Physicians are not altogether unanimous regarding the advantages of dispensing triturates and granules, and many of them are siding with the pharmacists in opposition to this ready-made practice of medicine. One physician in a recently published article points out a serious danger which may attach to the administration of these remedies, in that, having been given to the patient, if any untoward results occur, it is impossible to prove to the satisfaction of anyone what was the exact nature of the remedy. He cites a number of instances where in his professional practice his reputation was saved only through his being able to prove by the pharmacist's prescription file just what was administered to the patient. In one case, where a harmless mixture was prescribed, the patient soon after taking a dose expired, and circumstantial evidence was, of course, in support of the supposition that the medicine caused the death. The prescription was proven, however, to be harmless and an autopsy showed that death was caused by heart disease. The writer points out that had he dispensed a tablet, keeping no written record, he would have lacked a very important proof that death was not caused by the administered remedy.

Pleasingly significant it is that a very candid discussion of this question of dispensing by the physician is being carried on in the columns of medical journals. Pharmacists have cause for congratulation at the tone of these discussions, which may be summed up as discountenancing the practice on the part of physicians, who in the main believe that the practice of medicine cannot be carried on conjointly with pharmacy, and that the field of pharmacy is peculiar to itself, an independent calling, though at one supporting and depending upon medicine.

One of America's so-called "Complexion Specialists" is not having a particularly pleasing or profitable experience in the British Isles. This Madame, aside from being obliged to undergo prosecution for selling a poisonous article, finds herself unable to collect from her agent, the legal decision being that, inasmuch as the preparation she sells is a poisonous one, she cannot legally sell it, and, therefore, any contract with agents is void. She had better come back to America, where

advertising will sell anything and the law does not inquire too closely into traffic of this nature.

The Ohio Dairy and Food Commission is rapidly collecting information which cannot fail to create much surprise, perhaps some consternation, among retail druggists. Our readers have been informed of the examination into the wares dispensed by Cincinnati druggists, but the investigations are not to cease with the probable prosecution of certain retailers in that city. The developments up to the present time are very interesting and calculated to be very beneficial to the profession and to the people. Examination of cod liver oil has proven that a large amount of it now on the market is adulterated with cotton seed oil, and many preparations of wine and cod-liver oil have been proven to contain no cod-liver oil whatever. Some samples of lemon oil have been disclosed 55 per cent of turpentine, 15 per cent of resin, 25 per cent of lemon oil and 5 per cent of water and alcohol. Juniper oil is found to be in about the same condition, and in a number of preparations of wine, beef and iron, no beef is discoverable and but a very small quantity of iron salts. It is probable that the names of the producers of these spurious articles will be disclosed by the commission. They certainly should be.

Should medical professors practice be a question which is agitating the medical faculty at Paris. Some think they may legitimately do so, and others contend that the physician in active practice cannot do justice to his classes, as he is not able to equip himself sufficiently. In order to be most satisfactory as a teacher, he must be a studious and scientific man, and, if true to his trust, will have no time for outside distractions. If it were a rule in this country that medical professors should not practice, we would have either no professors or no practitioners. In the majority of cases the doctor needs the income, whatever it may be, from his teaching to eke out his professional intake, and the reverse of this obtains equally.

How many minor industries, of which the world knows little, contribute their portion toward the support of humanity. Unconsidered trifles in the aggregate form the total of our material comfort, prosperity and advancement. One of these trifles, interesting to the druggist and the doctor, is treated on another page, where a correspondent describes the process of the manufacture of silk-worm ligatures. The little strand which binds a wound is not unimportant.

What can the pharmacist do in a practical way to carry out the views expressed by the International Pharmaceutical Congress, that he should engage in sanitary work, be in fact "the common chemist of the common people?"

THE U. S. DISPENSARY.

We learn that the new U. S. Dispensary will be ready about the second week in February. Its pages will be one inch wider but no longer, so that the book may be placed upon shelves of the usual height. Part 2 will be in double columns and will discuss all the new remedies. The book has been entirely revised and will be printed from new type.

[Written for the Era.]

THE EXPLOSIVE AND INFLAMMABLE COMPOUNDS OF THE U. S. P., 1890.

By F. J. WULLING.

A thorough pharmacist is, or should be, among other things, a thorough chemist. He knows not only something regarding the physical properties of the substances he handles, but he also knows a great deal regarding their chemical disposition. His knowledge of chemistry extends beyond known and demonstrated facts, he is intelligent enough to foretell in many cases the actual or probable result of the bringing together of chemicals or compounds, which he, or others, had not before brought together. Knowledge is relative; the greater the acquaintance with the relations of things to each other or, which is the same thing, with relative facts, the greater the knowledge. Knowledge begets knowledge, and the acquisition of it proceeds in an increasing ratio; that is, relative facts already acquired aid, in their application, in discerning and acquiring facts not before known. The pharmacist knows what will result if he brings solutions of zinc sulphate and lead acetate together, because he has often mixed them—he demonstrated. He knows that the precipitate formed is lead sulphate, and that lead sulphate precipitates because it is insoluble. He learns from this that lead sulphate may be produced by bringing together, for instance, lead nitrate and diluted sulphuric acid, or by reacting upon any soluble lead salt with any soluble sulphate—he deduced or discerned. All deductions are not so sequential, but opportunities are presenting themselves daily to pharmacists to deduce or discern or reason out (to them) unknown truths from principles already known to them. The application of this capacity to deduce correctly would probably have obviated many accidental explosions and conflagrations and their results.

The greater the pharmacist's skill to discern and deduce correctly, the greater is his ability. Not all facts are deducible, however, some must be discovered. When one's ability to deduce is insufficient to establish a fact, recourse may be had to discovery, if the distinction between deduction and discovery as here applied be permitted. Such discovery would be intentional discovery, but discovery is not always intentional, more often it is unintentional, and the latter has probably been the greatest means of making us acquainted with the nature of explosive and inflammable compounds.

In the U. S. P. there occur a number of substances which are explosive or inflammable, or which, when brought in contact with certain other bodies, induce explosion or inflammation, or both. It is the present purpose to study the relations of those bodies to each other and to others, especially the chemical relation, in order to be better able to deduce and discern, and thereby obviate, perhaps, explosions or inflammations and the disastrous results often ensuing. The substances to which reference will be made are the following conveniently classified as oxidizing and reducing agents:

OXIDIZING AGENTS, OR OXIDIZERS.

Nitrates, including Nitric Acid and all dry nitrates and the oxides of nitrogen and their combinations.

Chlorates, including all dry chlorates, and the oxides of chlorine and

Hydrochloric and Nitrohydrochloric Acids.

Chromic Acid, including Potassium Bichromate.

Silver Oxide.

Potassium Permanganate.

Iodates.

REDUCING AGENTS FOR OXIDIZABLE OR COMBUSTIBLE BODIES:

Charcoal.

Phosphorus.

Hypophosphites.

Sulphur and Sulphides.

Glycerine.

Sugar.

Alcohols.

Ethers.

Organic Matter, Cork, Pill Excipient,

Dust Extracts, Hydrocarbons, Organic Acids, etc.

Iodine.

Reduced Iron.

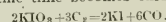
Zinc, powdered.

Cyanides.

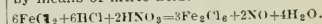
Thiosulphates.

In the study of these bodies the behavior of the chemical force occupies most attention. Explosions are not induced by the chemical force alone, but by physical force as well; the physical force according to which bodies become contracted in volume by cold and expanded by heat is often responsible for accidents. Bottles or other vessels containing light, volatile or inflammable liquids, such as alcohol, ether, chloroform, benzine, ammonia, etc., should never be wholly filled, because an increase of temperature causes an expansion of the liquid, the expansive force being usually great enough to burst the most substantial vessel. The disengaged vapors, or liquid, may come in contact with a flame and induce accident. There are numerous accidents on record due to negligence in this respect. The phenomenon explosion, therefore, deals mainly with the chemical force. The characteristic of this force is that when it exerts itself upon or between two or more bodies, these become changed in their composition, yielding one or more bodies which are unlike them in structure or composition. This change usually takes place in a very gradual and orderly manner and without producing heat in the majority of instances; sometimes, however, the rearrangement of the atoms, according to their affinities, is very rapid and even violent, in such case the chemical force exerting itself, as it were, upon every atom and molecule at nearly or exactly the same moment. Explosions, therefore, are very violent chemical actions for the most part. The rule is that the more rapid the action the greater is the friction produced by the movement of the atoms and molecules, and consequently the greater the heat produced. Friction produces heat, matches are ignited because the heat produced by the friction caused by striking the sulphur-tipped end is high enough to ignite the explosive and inflammable mixture. Every substance has a kindling point; that is, every substance can be made to burn by raising its temperature high enough. Burning is a chemical action, but no body will burn below its kindling point. Above the kindling point the chemical action is usually termed burning, the latter term associating with it the idea of heat and flame. Explosions are usually, though not invariably, accompanied by heat and flame. Violent

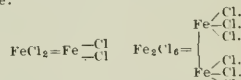
chemical action, whether accompanied by heat and flame or not, is usually a form of oxidation; that is, there is a part or the whole of the action depending upon the union of oxygen with some other element or compound. Bodies rich in oxygen, as potassium chlorate, nitric acid, oxide of silver, etc., which, under favorable circumstances, part with some or all of their oxygen, the latter combining either in an orderly or violent manner with other bodies, are oxidizing agents, which are acted upon by oxidizing agents become oxidized; the oxidizing agents at the same time becoming reduced. The oxidized bodies, because they reduced the oxidizer, are termed reducing agents. Violent chemical actions, whether accompanied by explosions or inflammations, or not, are simply oxidations and reductions, there being of necessity a reduction where there is an oxidation. Thus in the preparation of iodide of potassium, the iodate formed is reduced by carbon, which at the same time becomes oxidized:



The term oxidation is also used irrelative of oxygen, and in a broader sense (which includes the above) is applied in any case in which the valency (combining power) of an element is increased. Reduction implies the decrease of valency. Thus in the preparation of Solution Chloride of Iron, the ferrous chloride, formed by acting upon iron with hydrochloric acid, is oxidized into the ferric chloride, by means of nitric acid:



In this instance the iron is bivalent in the ferrous state and quadrivalent in the ferric. The graphic formulae will illustrate:



In the former one atom of iron has two free bonds, in the latter two atoms of iron together have six bonds (one bond of each of the two iron atoms uniting with each other, leaving six bonds free), the iron has been oxidized, yet it is not in combination with oxygen. The nitric acid, when it oxidizes, yields free oxygen—in this case the oxygen combines with the hydrogen in the hydrochloric acid, leaving the chlorine free to combine with ferrous chloride to form the ferric chloride. The corresponding reduction takes place in the nitrogen in nitric acid. In the latter nitrogen has five bonds or is quinivalent:

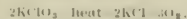


In the NO formed it has only two bonds, or is bivalent.

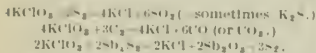
These illustrations may serve to better illustrate that which follows:

Chlorates, etc.—Of the explosives of the Pharmacopoeia, or those likely to cause explosions or inflammations, the chlorates of potassium and sodium are perhaps the most dangerous and yet the most frequently used. It will be noticed that the list of oxidizing agents above contain other bodies with as much oxygen as the chlorates; they are not as dangerous, however, excepting perhaps the compounds of nitrogen in some forms, because they do not part as readily with their oxygen as the chlorates, in which the chemical affinity between the chlorine and the oxygen is only very feeble.

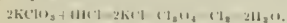
The application of a slight heat to potassium or other chlorates will cause the oxygen to become liberated, leaving the potassium chloride behind as a residue.



This heat may be produced by friction, the latter differing from applied heat in often causing all of the oxygen to be liberated at once, producing explosion—hence chlorates should never be triturated or rubbed very briskly, neither alone nor with other bodies. Potassium chlorate has exploded when triturated with sulphur, charcoal, antimony sulphide, muellage tragacanth, phosphorus, various forms of organic matter, etc., in each of these cases the oxygen of the chlorate uniting with the other bodies present:



With hydrochloric acid the chlorates produce the gas euclorine, which is highly explosive.



This gas, when in contact with glycerine or other organic bodies, oxidizes them violently usually producing explosion. A favorite prescription with many physicians contains tincture chloride iron and potassium chlorate, and often glycerine. The latter should not be added because of the liability to produce explosion by the action of the chlorate directly upon the glycerine, or by the action of the free hydrochloric acid in the tincture upon the chlorate, forming euclorine, which with glycerine usually explodes. The presence of water lessens the possibility of explosion, yet explosions have occurred in presence of water in the above mixture. Chlorates are not used extensively in pyrotechnics, because of their property of causing too rapid and sudden combustion.

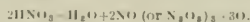
Not only is euclorine explosive, but all of the other oxides of chlorine exhibit a similar tendency, and free chlorine also has great chemical affinity. They should always be regarded with suspicion and should be handled with the utmost care. Free chlorine will explode violently with sulphur, or metallic antimony, if the latter is dropped into it in a finely divided state, and with many other bodies. Chlorine, and its oxides and their compounds including the chlorates therefore should be carefully used and their probable action upon other bodies anticipated by deduction as far as possible, and obviated or circumvented if possibly explosive. The presence of water where admissible usually effectually obviates explosion.

Iodates, too, have frequently exploded with reducing agents, but their use is very limited, and hence accidents less frequent than with chlorates.

Hydrochloric and Nitrohydrochloric Acids, the latter especially, are powerful oxidizing agents. Mere contact of the latter, freshly prepared and in its undiluted state, with many bodies induces explosion.

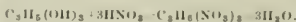
Nitrates and Nitrites, with some exceptions, are not in themselves explosive, but they are often instrumental in bringing about explosions, owing to their large percentage of oxygen. The oxygen is more firmly united with the nitrogen than it is with the chlorine in chlorates. Nitric acid is perhaps the most powerful oxidizing agent. The higher oxides of

nitrogen also are powerful oxidizers. When nitric acid comes in contact with readily oxidizable substances, the chemical union is often accompanied by detonation and sometimes by rapid inflammation; by the latter especially if the body is organic. Inflammation and often violent explosion have resulted when strong nitric acid acted upon alcohols, ethers, phosphorus and its lower combinations, etc. Nitric acid oxidizes most metals and enters into the preparation of many compounds in many of the processes explosions are liable to occur at any time, especially if the temperature is not guarded. Whenever nitric acid acts as an oxidizing agent it splits up in such a manner that two molecules become resolved into water, oxide of nitrogen and free oxide:



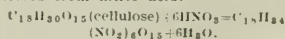
The oxygen induces the oxidation, and sometimes the nitric oxide also takes part in the oxidation by acting as a carrier of oxygen from the air to bodies to be oxidized, as is the case in the manufacture of sulphuric acid.

Some of the most violently explosive compounds contain nitric acid in their constitution. Nitroglycerine, the most formidable of modern explosives, is the result of the action of nitric acid upon glycerine in the presence of sulphuric acid.



Spilled upon wood or other organic substances, nitric acid often causes fire immediately; explosions and fires have resulted from spilling it into sawdust and into excelsior. It is expedient to have ammonia water in proximity to nitric or any other strong acids, to use to neutralize with at a moment's notice.

Pyroxilin, soluble gun cotton, with whose inflammable nature every pharmacist is familiar, contains nitrogen oxide derived from nitric acid:



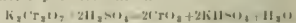
Nitrogen in various combinations may at times prove dangerous—the nitrogen in ammonia, and also in spirit nitrous ether, is known to have exploded violently with tincture iodine and other preparations of iodine, having formed the explosive iodide of nitrogen. Subnitrate of bismuth has exploded with bicarbonate of sodium. Aromatic spirits of ammonia with chloral hydrate have caused explosions after several hours' contact, due probably to the oxidizing property of the nitrogen in the ammonia inducing the decomposition of the chloral with formation of chloroform.

Potassium Permanganate.—Of this salt the Pharmacopœia says that it should be kept in glass stoppered bottles protected from light and that it should not be brought in contact with readily oxidizable bodies. Explosions with permanganates are very rare—in the writer's experience a slight detonation ensued upon triturating permanganate with calcium hypophosphite. Its well known oxidizing power is due to the oxygen which it liberates in presence of organic matter and sulphuric acid.

Chromic Acid.—This oxide is very powerful in its oxidizing properties, mere contact with many bodies, such as alcohol, ether, glycerine, sugar, tannin and other organic or easily oxidizable bodies being sufficient to cause sudden and violent explosion. In oxidizing other bodies it loses all or part of its oxygen. Great

caution must be observed in handling this oxide, not alone because of its violent explosive nature, but also because of its caustic action upon the tissues. Burns resulting from it heal with difficulty and often turn into ulcers.

Bichromates.—There are records of explosions resulting from potassium bichromate in presence of strong acids. The latter produce chromic oxide:



Silver Oxide.—If this oxide is triturated with oxidizable or combustible bodies, explosion ensues. It is often prescribed in pill form, and explosions have ensued during their preparation and afterward. Gelatine capsules are recommended as safe vehicles for dispensing the oxide. When triturated with phosphorus violent explosion takes place; with solutions of ammonia, a rapid disengagement of nitrogen gas is produced, sometimes resulting in explosion. The oxide induces explosion with creosote and with other organic compounds. When this oxide enters into these violent reactions it becomes reduced to the metallic condition or to the lower oxide.

With silver oxide we leave the oxidizing agents, to consider briefly the reducing agents, much of that said in reference to the former having bearing upon the latter. The reducing agents are all more or less capable of taking oxygen into their composition or uniting with it to form other combinations. The intensity of the chemical action determines the violence of the explosion, if any. They are not invariably oxidized by oxygen.

Charcoal is the common reducing agent, but explosions with it are infrequent. It is the reducing agent in gun powder, in which it is oxidized by the nitrate of potassium, this being reduced to the sulphide. Triturated with chlorates and nitrates, it is liable to cause explosion. The products of its oxidation are carbon monoxide and carbon dioxide.

Hypophosphites have exploded when triturated alone. They are liable to explode with any of the oxidizing agents, especially with the chlorates and nitrates. The products of their oxidation are dependent upon the oxidizing agent, and are usually phosphites or phosphates or phosphoretted hydrogen. This applies to all the official hypophosphites. Care should be exercised in making the syrup hypophosphites, not to triturate the salts without the addition of a little water.

Phosphorus ignites spontaneously in the air, or with greater promptness in oxygen, or with bodies yielding oxygen. Explosions have occurred in the preparation of phosphoric acid, when the phosphorus came in contact with the nitric acid. The utmost care should be had in using phosphorus—phosphorus burns heat very slowly and are very painful.

Zinc Phosphide, when exposed to the air decomposes, the phosphorus uniting with the oxygen in the air. Explosions have occurred when it is rubbed with potassium chlorate.

Sulphur often becomes oxidized so quickly that explosion ensues. If triturated or heated with chlorates or nitrates it may produce explosion. Violent explosions have followed its admixture with chlorinated lime.

Sulphides sometimes in chemical decomposition become resolved into sulphur and the metal, the same operation

sometimes causing the sulphur to become oxidized with violence.

Carbon Dioxide is dangerous chiefly because of its extreme expansibility. It has exploded with concentrated nitric acid.

Glycerine has frequently caused explosions. It reduces nitric acid, chromic oxide, potassium permanganate, potassium chlorate, chlorinated lime and many other oxidizing agents with explosive violence.

Reduced Iron and Powdered Zinc have caused detonations with chlorates.

Sugar, Alcohol, Ethers, Oils and other organic compounds may cause explosions with the more powerful oxidizing agents.

Iodine, or preparations containing it in the free state have caused violent explosions with ammonia, the explosive compound formed being the iodide of nitrogen. A paper filter through which a concentrated solution of iodine and iodide of potassium had passed, and which subsequently dried, was shivered into atoms with a loud explosion when it was endeavored to remove it from the funnel.

As a rule, all of the oxidizing and reducing agents given above react upon each other under certain circumstances with explosions as the result in the majority of cases. The cautious pharmacist is ever careful in manipulating them.

[Written for the Era.]

SILKWORM GUT.

By W. Lodian.

The best silkworm gut in the universe comes from Nurcia, a city in southern Hesperia. It is made in several other parts of the world, but the quality is always inferior. Great care is taken by the Nurcians in its manufacture. Thus, beginning with the seeds or eggs that eventually develop into the full-grown silkworm, they find that the best results are obtained by developing the eggs of the Bombyx mori, or Chinese moth. Much attention is paid to the choice of suitable eggs, and considerable study devoted to their incubation. A marvel it is that so much care is devoted to the hatching process, whereas, once hatched and in the growth of the silkworm, scarcely any attention is paid. Care, however, is taken in these respects: Before sweeping the floors of the rooms where the worms are growing, moist sawdust is thrown on the ground to take the dust. Only fresh mulberry leaves are given the worms to feed on, care being taken not to let stale ones get among them. And (a seemingly needless precaution) the operatives or watchers are warned not to use to bring in fresh leaves the same baskets that are used to carry out the old leaves.

The worms are first called gusanos-de-seda. In a few weeks they are known as tripes de gusanos-de-seda. French surgeons and anglers call them boyaux de vers-a-soie-de-seda (the literal translation of which is singularly ridiculous).

It is on the third day of the first month of the year that the eggs are put in position for hatching (incubation). Some little while prior to the incubating process they are steeped for some 150 minutes in water kept at a warmth of nearly fifty degrees. The eggs are next laid out on canvas for a while, care being taken not to let them touch each other, and they are placed in an apartment in which a current of air can circulate over and about them, thus insuring desiccation.

During the first twenty-four hours the air ought not to exceed 62 degrees Fahr.; for the second twenty-four, say 63 degrees; up to seventy-second hour, 70 degrees. Proper treatment usually causes the larva to appear in about a week after setting the seeds or eggs to incubate. From 250 to about a thousand eggs are considered a layer, and the number of layers varies according to the speculation of the growers as to what the demands of the market are likely to be.

Much more care is taken with the larva in other countries than in Hesperia. Here the development of the seeu is left to itself and the result is the Hispanian worm emerges in a semi-savage state. This is particularly apparent when the worm is suffered to develop into a moth. After resolving itself thus, the feminine individual of the Bombyx mori hardly stirs. After association with the male, it lays its eggs and dies.

Directly the worm appears, it begins feeding, and so continues for two or three days. The finest leaves of the mulberry are alone used, and these are minced into small pieces by a razor-like cuchillo (knife). Care is required not to bruise the leaves, as, the sap being liberated, the worms reject them as spoiled, or will only touch them when they can get nothing better.

The worms are placed on shelves of bamboo or on the ground and the mulberry leaves are strewn over them from nine to ten times altogether during the course of their growth. They are allowed to gorge themselves to satiety. The worms are placed in thatched-roof sheds, and, as sudden changes of temperature are almost unknown in southern Iberia, scarcely any provision is made for a possible cold blast, which would be liable to kill all the gusanos in a single night.

About the expiration of the fourth day the silkworm goes off to sleep for about as many days as it has already existed. On awakening the supply of mulberry greens is renewed, and greedily devoured. This goes on for nearly a week, when, being surfeited, the little animal revels in innocent sleep for the short space of 100 hours or so. When a fortnight old it will be seen devouring entire leaves rapaciously, day after day, until it is three weeks of age, when somnolence overcomes it—this time—for only about a day. On awakening it will go on an eight or ten days feast at a stretch and will consume such an amount of green stuff that the marvel is how he holds so much. Becoming helplessly fat, it takes its final nap, which lasts a day. Having had its last sleep, it sets to work on the final gorg. For one and a half weeks it will eat, eat, eat, causing to disappear a terrific quantity of leaves. The effect is patent. By the time the worm is six weeks old it has bloated itself to the utmost, and, judging from its actions, is uncommonly uncomfortable. It will be seen trying to climb anything which can be climbed. This is the all-important moment for the gut-producer. It is proof that the worm is about to spin, wants to rid itself of its silk.

At this juncture the worm is watched closely. When it is on the point of spinning, or within a half hour thereof, it is pitched into a vessel containing vinegar. It is dead in a twinkling. The worms are kept in this sour wine for about half a day, or say one night. There are a couple of silk-guts in each worm and

the picking hardens the gut. In the early morning they are turned out and are easily pulled apart. An operative, generally a sweetly-paid senorita, takes a dead worm between her fingers and deftly draws it asunder. After a little practice, she is enabled to speedily take out the gut-sacks. It is disagreeable work. Taking a silk sack between the fingers, the operative gently draws it out to its limit, making a very long thread. She must not stretch it too much or it would part. Being soft, care has to be taken. Each line, which is cased in a thin filament known as carne (and this has to be removed subsequently), is cast on the floor until a sufficient number have accumulated. They are next cleaned in running water and are strung up to dry. On the complete disappearance of the moisture the lines are put into bundles of from 3,000 to 8,000 and upwards, and disposed of by the pound to merchants or dealers.

When in the hands of the merchants, the first operation is to remove from the gut its coating of dried flesh, which has a yellow tinge. This is the tegument of the silk-sac, which, having been removed, leaves only what would have been silk if the worm had been allowed to spin it. Formerly the covering was removed with the nails or teeth, but this process left the gut in an unsatisfactory state. It is now done chiefly by treating it chemically and the covering is easily removed. Next the gut is made into small bundles and put aside.

Care is exercised to preserve the humidity of the commodity up to the next procedure, which is that of selection. Taking a quantity of gut, placing it in a cloth which they hold between their knees, women do the process of selection. Drawing the gut out, line by line, they put one end in the mouth and hold it there until they apply friction by a rag. The tegument clears away any tiny pieces of tegument yet remaining, and renders the gut lustrous. When thus holding it, these females eye it closely and determine its quality. This is judged by its thickness. Every finger represents a grade, and the strands are piled up between the fingers until the hand is full. Then it is laid in a cloth, rolled up, and left overnight to straighten out.

String by string, the succeeding day, it is assorted once more, and the flat gut is parted from the round gut, which latter commands higher prices. Next there is a selection in regard to length, and then it is counted by the gross, tied at the frayed extremity, and skinned. Having been dried, jute is put around the tail-end of the skein. Straightening, rubbing and polishing follow. Ten of the skeins make 1,000 strands of commerce.

In the selection of gut there are a few a-b-c kinks which may be remembered with advantage by purchasers. The worth of gut consists in its quality and length. In the United States and Great Britain the lengths most esteemed are from 11 to 12-1/2 inches. Usually the latter is valued at about 15 per cent more than the 11-inch. Lengthy gut, from 14 to 19 inches, has a steady sale in the sister republic across the Pyrenees, but in America its importation is only just beginning to be felt. Rotundity, hue and freshness determine the true nature of gut. Its newness is, as a rule, decided by the end, which is fuzzy, and, if this can be an immaculate white, it may be considered

of recent manufacture. Of the gut itself, the color should be a pearly white, glossy and untinged by yellow. Eye and finger will familiarize one with its ovality. Turning the skin toward the light will reveal any blank or quality-reducing spots.

To detect unevenness or flatness, if the thumb and finger are passed along the gut, the inequalities are very soon apparent. The flat strands are worth about 50 per cent less than the round ones. The rough strands should not exceed by 20 per cent the good ones; and it is lucky if it is only 10 per cent.

Surgeons and anglers should recollect that, before attempting to tie or knot gut, it ought to be put to soak in cold water. Regular gut requires half an hour's steeping to make it pliable. Other grades need from one hour's to half a day's steeping.

A quarter of all the gut turned out is estranda (crooked). The percentage of the various kinds of thickness differs every twelvemonth. The exertions of gut people are ever in the direction of turning out the thickest and largest gut possible. The production is always one of speculation and doubt.

To prove the increasing interest taken in the silkworm gut in English-speaking countries, it is only necessary to point out that in the United States alone some half a thousand persons or so are entirely indebted for their salary to occupation found for them by this article; while at a conservative estimate 25,000 people are interested in its sale, and the uses to which it is put. This calculation does not include the thousands of anglers who use the *gusano-de-seda* product.

Apart from the information gathered on the spot during travels in Spain, the writer acknowledges his indebtedness for "pointers" to the Messrs. Carswell and Imbrie, both authorities on the subject. With regard to cost the latter gentleman writes: "It is very difficult for the merchant to estimate closely the cost of each size, quality and length; indeed, it is impossible for him to do so at all on any single lot. Only by a very accurate knowledge of what he can obtain for the different grades, as well as for the most salable grades and lengths, together with the faculty of close practical general averaging of his season's products, can he feel at all certain how to fix a cost price on each of the sizes, qualities and lengths."

As a ligature, there is a constant demand among surgeons for silkworm gut. It was first used in a surgical case in Scotland over sixty years ago. American surgeons have, within the past few years, used it with considerable success. As a ligature in securing main arteries it is found of inestimable value.

In the present paper all that is said on the subject is based on long observation, obtained at the expense of much travel. The process is, to a large extent, an open secret, but in Iberia, a silver key opens all doors.

A RUSSIAN PICK-UP. A liberal draught of petroleum. It is claimed, will restore the stupid drunk to his normal condition. We have heard of some individuals who imbibe freely of kerosene for the purpose of bringing on intoxication, and in exchange for the Russian hint, we offer this one.

REMARKS ON THE CHEMISTRY OF BACTERIA.*

By R. Warrington.

The immense variety of substances produced in the vegetable kingdom has always been a source of astonishment to the chemist. The plant is, indeed, the finest chemical laboratory with which we are acquainted. While some kinds of chemical work are common to all plants, there is hardly a species which does not possess some special capacities—which does not produce some products different from its neighbors. When we survey the whole vegetable kingdom, the extent to which this specialization is carried, and the immense variety of the products obtained become simply overwhelming. Chemists are still unacquainted with the larger part of the substances produced by plants. When we turn from the products of plant work to the materials employed our wonder still increases, for these materials are of the simplest kind—water, carbonic acid gas, oxygen, nitric acid, and a few inorganic salts—yet out of these the whole of the immense variety of vegetable products is constructed.

This being the case we need hardly say that the methods of plant chemistry are of supreme interest both to the chemist and to the vegetable physiologist. By the aid of what forces, through what course of reactions, are the simple materials molded to their final issue? The higher plants are in some respects unfavorable subjects for study of plant chemistry. Their different parts have different functions, and the changes in progress are obscured to the student by the fact that changes of a very different type are in progress at the same time, and in places very near to each other. What would not the physiologist give if he could isolate a single cell, and grow it by itself in solutions of known composition; when by studying the nature of the cell's new growth, and the variations taking place in the nourishing solution, he might hope to be able to grasp the facts of cell nutrition, and the nature of its waste products?

Such an opportunity is actually afforded when we study the chemical changes brought about by bacteria.

In bacteria we have the vegetable cell in its simplest form; we have a mass of protoplasm and a cell wall, but the cell is single or united with a few others, and, as far as we know, the life changes in all the cells of every species living under the same conditions are the same. Moreover, these organisms grow freely in suitable solutions, and the chemical changes produced in the materials held in these solutions can be readily ascertained. We have thus in a study of the chemistry of bacteria a splendid opportunity for enlarging our knowledge of plant chemistry, and, indeed, of becoming acquainted with the fundamental reactions on which synthetic organic chemistry depends.

The study of the chemical work performed by bacteria has occupied as yet but a few years, but the results have been most remarkable. The immensely numerous species of bacteria have been found to exhibit an almost equally great diversity of action. Different members

of the class have been found to flourish under entirely opposite conditions, to feed on wholly different materials, to perform an immense variety of chemical work upon the media in which they live, and yet the chief product of plant life—the formation of protoplasm and cell-wall—is probably in each case practically the same. The study of the chemistry of bacteria has thus greatly enlarged our conception of the chemical powers of the vegetable cell.

As a contribution to the discussion I propose to call attention to the chemical actions displayed by three species of bacteria existing in the soil, and all of first-class importance in their relations to agriculture.

It is well known that all ordinary soils contain organisms possessing a vigorous power of oxidizing—of bringing about a combination between the oxygen of the air and various organic and inorganic bodies. Thus dead vegetable and animal tissues in soil are, under favorable conditions of heat and moisture, resolved into carbonic acid, water, and nitric acid.

Particular experiments show that the nitrogen of albumin, gelatin, agaragin, urea, ammonia, ethylamine and thiocyanates is converted by soil into nitric acid. Nor is the action confined to organic matter; for nitrates are oxidized to nitates, iodides to hypiodides and lodates, and bromides to hypobromites and bromates.

The organisms producing nitric acid have been made the subject of study by many chemists, and after much labor and many disappointments, they have been satisfactorily isolated.

We now know that the production of nitrates in the soil—a process of the greatest importance for the nutrition of agricultural crops—is accomplished by the actions of two organisms, each of which performs a distinct stage in the work. By one organism ammonium carbonate is oxidized and the nitrogen converted into a nitrite. By the second organism nitrites are converted into nitrates. We have here an excellent example of the way in which certain special functions, certain narrowly limited lines of work, are exercised by individual species of bacteria. The nitrous organism can oxidize ammonia to nitrite, but it cannot change a nitrite into a nitrate. The nitric organism, on the other hand, oxidizes nitrites readily, but it cannot oxidize ammonia. Both organisms are present in all fertile soils, but the formation of nitrites is not usually perceived, as they are at once converted into nitrates.

The organisms we have mentioned grow and perform their functions when certain inorganic salts supplying phosphates, sulphates, potassium, calcium and magnesium are present. The continued omission of one of these has proved in several cases to bring about a cessation both of growth and function. The general fact is familiar to physiologists, but it is singular that we have as yet no rational idea of the mode in which these various inorganic bodies assist in plant nutrition, with the exception of the fact that sulphur, and possibly in some cases phosphorus, are constituents of albuminoid bodies.

As to nitrogenous food, these organisms are amply furnished by the ammonia, the nitrite, or nitrate which is intentionally added to the solution; the addition of no other nitrogenous substance is

*A paper read before a conference of Sections B and D, Nottingham Meeting, 1893. Reprinted from the *Chemical News*. Ph. Jour.

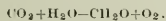
necessary. Here, too, we are on familiar ground. Ammonia and nitrates are both well known as the most appropriate nitrogenous food for plants.

When we inquire, however, what is the source of carbon to the nitrifying organisms, we are confronted by a startling novelty. It is found to be quite unnecessary to supply these organisms with any carbonaceous food save carbonates, bicarbonates being preferred. The fact of the conversion of carbonates into organic cell substance has been conclusively proved in the case of the nitrous organism; it is at present assumed to be also true of the nitric organism, as this also requires the addition of no organic carbon to its nutritive solution.

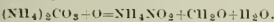
The fact that green plants exposed to sunlight are capable of forming organic substances from the carbonic acid and water of the atmosphere is well known to physiologists, but it is equally certain that this action does not occur in the dark. Yet here we have a colorless cell, destitute of chlorophyll, growing in the dark, which, nevertheless, is capable of decomposing carbonic acid, and producing from it carbonaceous cell substance. From a purely chemical point of view this reaction may well appear at first sight incredible, as the decomposition of carbonic acid is an action requiring the consumption of much energy, which in the case of the green plant is supplied by the sun's rays, but in the case of the nitrifying organism is supplied in no such way.

This theoretical difficulty disappears, however, when we look at the whole reaction brought about by the nitrous organism. This organism attacks carbonic acid in its combination as ammonium carbonate, and the formation of an organic carbon compound proceeds at the same time as the oxidation of the ammonia; the result of the whole reaction being the liberation of heat, and not its consumption. A supply of external energy is thus not required.

Expressed in its simplest terms, the green plant manufactures carbohydrates from carbonic acid and water by a consumption of solar energy as follows:



The nitrous bacterium oxidizes ammonium carbonate, producing at the same time ammonium nitrite and a carbonyl hydrate; this reaction we may express in its simplest form as follows:



The equation, however, by no means fully expresses what actually occurs, as Winogradsky finds that 35 parts of nitrogen as ammonia are oxidized for one part of carbon assimilated; the whole reaction is thus strongly exothermic.

The nitric organism multiplies more slowly than the nitrous and does not, therefore, afford so good a subject for quantitative experiments; its nutrition has not yet been fully studied.

The last organism I wish to speak of is the one of which Winogradsky has given a preliminary description during the present summer. It has been obtained from soil and possesses the remarkable power of assimilating the free nitrogen of the atmosphere. To accomplish this assimilation it is simply necessary to grow it in a solution containing sugar (dextrose) and the necessary salts, no combined nitrogen being supplied. Under these circumstances a vigorous growth of the

bacillus takes place, the sugar undergoes a butyric fermentation, and at the end of the operation it is found that the culture has acquired nitrogen, the amount being apparently about 1-500th of the weight of the sugar fermented. By using as much as 7 grams of sugar, an assimilation of 14 milligrams of nitrogen has been obtained. Washed air, free from ammonia and nitrates, was used in these experiments.

That a vegetable organism should be able to acquire from the air the whole of the nitrogen which it needs is certainly very remarkable, and is an extraordinary fact both to the physiologist and chemist.

We have no clue as yet to the mode in which the nitrogen enters into combination; but it is evident that, in this case, as in the nutrition of the nitrous organism, the difficult piece of chemical work forms but a small part of a much larger reaction that is at the same time in progress, and with which it is essentially connected.

It seems not improbable that these results of Winogradsky will explain some facts which have hitherto presented much difficulty. That a special organism, when in union with the roots of a leguminous plant, is capable of bringing about the assimilation of the free nitrogen of the air is now admitted by all; but it is denied by Schloesing and other accurate observers that the same organism when living in the soil has any such property. May we not suppose that for the assimilation of nitrogen to occur the organism must be supplied with sugar or its equivalent, and that this supply of sugar to the organism only takes place when the organism gains access to the sap of one of the higher plants.

In conclusion, I think we shall agree that, however imperfect is our knowledge of the chemistry of the three species of bacteria we have considered, the facts which have been established have at least enlarged our conception of the capabilities of a vegetable cell, and I trust that some light has also been thrown on the general method by which some of the extraordinary chemical results are attained.

THE CHEMICAL INDUSTRY OF THE UNITED STATES.*

By Henry Bower.

The chemical industry of the United States, in common with the other leading branches of manufactures, shows a remarkable increase in the decade between 1880 and 1890, and this is accompanied, in some instances, by results of such magnitude as to become phenomenal. Totals of productions of chemicals in the United States in 1890:

	Value.
Alum (94,174,008 lbs.).....	\$ 1,625,210
Coal tar products.....	687,591
Dyeing and tanning extracts and sumac.....	7,947,811
Gunpowder and explosives (408,735,980 lbs.).....	10,802,131
Fertilizers (1,818,552 tons).....	34,038,452
Paints, white and red lead colors, and varnishes.....	52,434,690
Pharmaceutical preparations.....	16,486,613
Potash and pearlsh (4,874,459 lbs.).....	185,247
Sodas (329,369,633 lbs.).....	5,234,409

*Read before the World's Congress of Chemists, August 25, 1888. Reprinted from Jour. Amer. Chem. Soc.

Sulphuric acid.....	6,522,591
Wool alcohol and acetate of lime	1,885,469
Chemicals, including all acids, bases, and salts not heretofore enumerated.....	25,140,425
All other products.....	12,903,943
Total.....	\$176,044,633

Sulphuric Acid.—The most important of all chemical manufactures is sulphuric acid, which maintains its supremacy over any other known article in promoting the manufacturing interests of the world. The large increase in the number of establishments and in the quantity produced indicates the advance that has been made in general manufactures in the United States during the last decade.

During the year ending June 30, 1890, the following quantities of sulphuric acid were manufactured:

50° B. 948,129,821 lbs., valued at.....	\$3,299,707
60° B. 19,078,597 lbs., valued at.....	112,540
66° B. 328,101,657 lbs., valued at.....	3,110,341

Total value.....\$6,522,591

This includes 50° acid used in the manufacture of fertilizers.

In order to obtain an intelligent comprehension of the extent of the entire sulphuric acid industry, it is advisable to reduce the foregoing figures to one uniform basis, that of 66° Beaume acid (oil of vitriol). As this contains from 93 to 94 per cent of real monohydrate acid (H₂SO₄), the reduction is made by multiplying the pounds of 50° acid by 100-150, and the pounds of 60° acid by 100-120. By so doing we obtain the following results:

Deg.	lbs. made	Eqvy. 66° acid.	Val.
50	948,129,821	632,086,547	\$3,299,707
60	19,078,597	15,888,831	112,540
66	328,101,657	328,101,657	3,110,341

Total

The total quantity of sulphuric acid produced in the United States reduced to a uniform strength of 66° B. is accordingly 976,087,035 pounds, or 488,043 tons of 2,000 pounds each.

Reducing the quantity produced to a uniform strength of 50° B., we have results as follows:

Deg.	lbs. made.	Eqvy. 50° acid.
50	948,129,821	948,129,821
60	19,078,597	22,894,485
66	328,101,657	492,152,455

Total 50° acid manufactured.....\$1,463,176,622
Equal to 731,588 tons.

Supposing all the acid chambers to be running 365 days to the year, we find the amount manufactured in twenty-four hours to be 4,008,703 pounds, or 2,004 tons.

Fertilizers.—From a technical point of view, manufactured manures become the next in importance to sulphuric acid in the category of chemical productions. The total of 1,818,552 tons of these materials produced during the year ending June 30, 1890, indicates by no inaccurate analogy the extent of the farming interests of the country. When we consider that about 300 pounds of artificial fertilizer are commonly used to the acre, it is seen that 12,123,680 acres are enriched by its use. The increase in manufacture and consumption over 1880 is 1,091,099 tons, or about 150 per cent. The figures show with

distinctness that large areas of our country are becoming unprofitable to farm without the use of these aids to fertilization. The existence of factories in the States of California, Illinois, Indiana, Michigan, Minnesota, and Wisconsin, is indicative of the gradual exhaustion of soil that was virgin in character less than twenty years ago. These facts show that the time is approaching with rapid pace when none of our unmanured soils will yield in remunerative quantity. They prove, also, that economies are gradually being practiced in the utilization of material that formerly ran to waste.

In this respect the farmer occupies a reversed position to that of the manufacturer of artificial manures. By prodigal wastefulness and culpable ignorance, he permits immense quantities of manurial matter to find its way to the sea, while bemoaning his lot and sighing over the yield of virgin lands in comparison with that of his own; whereas the manufacturer, by the aid of chemical skill, converts the refuse matter into valuable merchandise. The advance in this branch of manufacture should give encouragement to the farmers of the Atlantic slope. When the distant time arrives for the extinguishment of an agriculture that is based on primordial soil, the lands of these regions will recover their lost value, for observation will show how closely fertility is allied to the production of these manufactured manures, which can be carried on most profitably at those points where supplies of foreign crude material are obtained and where sea-board transportation can be made available.

Soda.—The last decade is rendered memorable to the chemical industry by the permanent establishment of the manufacture of soda salts in the United States. Hitherto all attempts to produce these articles successfully from common salt have failed. The causes that have led to repeated failure and the consequent loss of large sums of money are to be found in the high cost of labor, the absence of customs duties on bleaching powders, or chloride of lime, and the exceedingly low rates of freight that rule in this class of merchandise. The Solvay Process Company, of Syracuse, N. Y., has been founded on the experience and skill of the noted Solvay of Belgium. But, however satisfactory the process may be, it has a defect that enters into the production of many articles in the United States, notably in bleaching, paper-making, and chemical works, inasmuch as all the chlorine of the common salt employed is lost, passing away as valueless chloride of calcium. Consequently the United States still remains dependent upon Great Britain for its supply of so important an article as bleaching powder. A question of the greatest interest centers in this problem, how to overcome this defect in our manufacturing system. The efforts of inventors have, for years, been directed toward the solution. Theory has marked out a number of paths, but practice has not yet succeeded in following any of these to a satisfactory result.

It may be added that, in addition to bleaching powders, the important chemicals, allazrin, chlorate of potash, and chlorate of soda, are not found among the salts produced in this country; and that these articles, so essential to the

textile interests, are free of customs duty.

Pharmaceutical Preparations.—The United States is pre-eminent in the manufacture of pharmaceutical preparations, which are produced in consequence of the demand by physicians for more palatable or more compatible material for the materia medica. These articles cover a large field; they include pills, lozenges, fluid extracts, and a great variety of elixirs. The title, "elegant pharmacy" conveys a correct idea of the position occupied by the industry. Medical substances are associated in the mind with the ad nauseam doses. The producers of pharmaceutical preparations have succeeded, in most instances, in masking or altogether obliterating the unpleasant properties of drugs, which marks an advancement of no small moment within the past twenty years, inasmuch as this tends to improved health, greater security from disease, and a consequent reduction of the death rate. The cost of distilled spirits constitutes the largest outlay in the manufacture of pharmaceutical preparations. A special investigation made by the census office of the United States showed that, during the year ending December 31, 1889, 10,576,842 proof gallons of distilled spirits were consumed in the arts, manufactures and medicine.

Chemicals and Dye-Stuffs Used in the Industry of Dyeing and Finishing Textiles.—In 1890 the value of chemicals used in the independent dye works, bleacheries and print works was \$8,407,693. Much of the dyeing and finishing is, however, done by the manufacturers of the fabrics themselves and the value of the chemicals and dye-stuffs is to be added to the amount named.

There were used by these manufacturers during 1890 the following amounts of chemicals and dye-stuffs:

Woolen mills.....	\$6,453,695
Cotton mills.....	4,226,773
Silk mills.....	558,592

Total\$11,278,970
Adding this \$11,278,970 to the value of the articles used by the dye works, bleacheries and print works (\$8,407,693), we obtain as a grand total of chemicals and dye-stuffs used in manufacturing, dyeing, and finishing textiles, the value of \$19,686,663—nearly \$20,000,000.

Compressed Ammonia Gas, or Anhydrous Ammonia.—The use of this article has reached large proportions within the past few years, and it has proved an invaluable aid to the preservation of food, the refrigeration of malt liquors, and the manufacture of ice. The introduction of the use of anhydrous ammonia has given great impetus to the manufacture of the special machinery adapted to its employment in the departments named. The United States can rightfully claim the inauguration on a large scale of these processes, which at this time yield profit, convenience and health to people throughout the world.

Fuel.—Together with the metallurgical operations of smelting, melting and heating, the chemical industry is a large consumer of fuel, hence great interest attaches to its supply; it is a figure of great importance in computing the costs of these manufactures. Many fuel-saving devices are to be found in chemical works, and within the past two years fuel oil has become of considerable importance. Numerous devices have aided in making

it adaptable in an admirable manner to furnace works. The replacement of coal is likely to be quite marked if the relative prices of the two fuels shall remain at the present ratio. Natural gas has also been utilized in chemical works in localities adjacent to a supply, and its use has proved a great convenience.

Labor and Wages.—The employes of chemical manufacturers range from the lowest order to the highest in the scale, and the wages paid vary in proportion. Many operations partake of the "double shift," or twelve hours, the work being continuous, hence the average paid per hand reaches the high figure of \$50 per week. Eleven dollars and sixty cents per week is the average pay, counting fifty weeks steady employment in the year. A few females and a small number of boys find occupation in this department of manufacture. The men are chiefly of the able-bodied class. The chemical, in comparison with such great industries as iron and steel, woolen and cotton, takes rank as the fourth among these great manufacturing divisions of the country. It represents a diversity of interests such as center in no other department, and it affords to the United States a source of activity for labor, skill and capital, that is highly encouraging to those who have pride in the progress of their country.

The chemical industry of the whole world is interested in and relies upon certain tables or ready reference calculations. These aggregations of figures are confusing to a certain extent owing to the variation of the bases of calculation. In chemical works in the United States tables will be found in use:

For Weights: avoirdupois, apothecary, Troy, metric, as kilograms.

For measure: English gallons, wine, metric, as liters.

For Specific Gravity: Beaume scale, Twaddle.

For Temperature: Fahrenheit, Celsius, Reaumur and Centigrade scales.

Growing out of these different guides we have endless difficulties, unless the writer on a given subject succinctly states by which of the various standards he is governed. The scale of Beaume is rendered confusing at times owing to the difference of the modulus that is accepted. The transmutation of one thermometric scale into another is daily necessary, while errors are frequently made by the difference in the gallon capacity in cubic inches.

The present is opportune for the discussion of this subject with the view of arriving at some deliberate attempt to produce conformity out of this bedlam of figures. The tower of Babel, with its traditional confusion of tongues, may be taken as representing the difficulties arising in chemical work and transactions. A committee consisting of representatives from each nation could be appointed, whose duty it should be to formulate an international system of figures and tables. Uniform methods and statements for these basal calculations would inure to the ease of commercial transactions throughout the world.

The report of Schering's Chemische Fabrik recently made to the shareholders shows the profits for the first ten months of 1893 to be 970,649 marks. The same period of 1892 gave profit of 1,051,168 marks. The Russian tariff war and the fall in silver are given as the causes of the decrease.

PHARMACY.

WEAK SAL VOLATILE brought a fine upon the seller in the Isle of Wight, even though he pleaded that the deficiency in ammonia was due to evaporation of it during the hot weather.

ACID-DIETHYLIDIBENZOYLDIAMIDOTRIPHENYL CARBINOTRISULPHONATE is the pet name for the chemical for which you would inquire if you wished to have green carnations.

NITRATE, NOT NITRITE.—A charge against an English pharmacist for selling spirit of nitrous ether of deficient strength was dismissed, because the summons read ethyl nitrate where it should have been nitrite.

CARBOLIC ACID AS A POISON.—Many suicides occur annually in England in which carbolic acid is used. It is felt that more stringent measures regarding its sale should be enforced, and the proposition to schedule it as a poison is receiving general public support.

BORAX for the treatment of epilepsy has attracted considerable attention of late. Some observers state, however, that its continued use is not so free from harm as has been supposed. Skin troubles, especially of the scalp, result. The hair falls out, but grows again after the stoppage of the borax treatment.

BELLADONNA ROOT contains alkaloids in proportion to its age. When 1 or 2 years old, 0.127 per cent in the spring and 0.452 in summer, the alkaloid being mainly hyoscyamine. A root 8 to 10 years old gave 0.147 in the spring, 0.338 in summer, and 0.230 in autumn. In the leaves of the wild plant in spring and autumn both alkaloids can be detected, while atropine only can be obtained from the mature fruit.

TO DISINFECT SEWERS, WATER CLOSETS, ETC.—Prepare as much quicklime as desired, break it into small pieces and place it in liquid carbolic acid for a quarter of an hour, and preserve in a tightly-closed vessel. If one wish to disinfect a sewer, throw into it a few pieces of lime, which will absorb dampness and send forth any quantity of vapor, impregnated with the carbolic acid, which will penetrate all through the sewer and disinfect it perfectly. Repeat it twice a day.

RESIN OF PODOPHYLLUM.—G. M. Beringer calls attention in *Am. Jour. Phar.* to an error in the *Pharmacopoeia*, where it is stated that ether dissolves 15 to 20 per cent of resin of podophyllum, and boiling water dissolves about 80 per cent and deposits most of it again on cooling. He finds both these statements erroneous and the literature of the subject very confusing. He thinks that properly prepared resin of podophyllum should yield to ether about 80 per cent, and its water solubility should be 22 to 23 per cent.

ALUMINIUM POWDER.—The following mixture is recommended by Prof. Bull for the aluminium flash-light:

Powdered aluminium..... 21.7 parts.
Antimony sulphide..... 13.8 parts.
Chlorate of potash..... 61.5 parts.
All parts by weight.

The three substances should be powdered separately, and the admixture made by shaking well in, say, a paper bag. Grinding the mixture with chlorate of

potash is said to cause a violent explosion. The above burns in about 1-17 of a second. A mixture burning less rapidly is composed of:

Powdered aluminium..... 30 parts.
Chlorate of potash..... 70 parts.
This burns in the fifth of a second.

PRESERVATION OF OLIVE OIL.—One of the great difficulties amongst olive oil manufacturers of the South of France is the preservation of olive oil during summer, and the prevention of rancidness during transport and when it is in the stores. The following process is recommended to prevent deterioration: In the first place, the oil is brought to the liquid state under the influence of a mild heat, after which it must be beaten with 1 per cent of pure oxygenated water. Six hours later this same treatment is repeated, and the next day also. At the end of a long period of rest the oil is poured off and mixed with two per 1000 of methanol. By working according to this method olive oil can be preserved for a comparatively long time, and the inconveniences resulting from the heat of summer are averted.

BISULPHIDE OF CARBON AS AN INSECTICIDE. Farmers and grain dealers suffer from the ravages of weevils and other destructive insects, and to their consideration is recommended the following method of application of carbon bisulphide for the destruction of these pests. Though the vapor of the bisulphide is very light, it has a tendency downward as well as upward, and the plan is to take a small bottle of the carbon bisulphide covered with a cloth and over it placed a wooden box, the whole then being located on the floor of the empty grain bin. The grain is then run in and, after the bin is full, it is surmounted by another portion of the bisulphide arranged in the same manner. The vapor of both bottles so thoroughly permeates the mass of grain that the insects, even rats and mice, are driven away or killed.

IRON ALBUMINATE.—A process which has been granted a German patent is described by L'Un. *Phar.* thus: 100 parts of egg albumen are made into solution with 2,000 parts of distilled water. To the liquid is added a solution of 25 parts of iron tartrate in 250 parts of distilled water, and just neutralized with 10 per cent solution of soda. Next, a solution of 10 parts of neutral sodium tartrate in 90 parts of water is added, and finally 38 parts of 10 per cent soda solution. The result is a muddy, yellowish-brown mixture, which is maintained at a temperature of about 90° C. for from 2 to 4 hours, or until it has become limpid. Tartaric acid is then added in solution, after cooling, until an acid reaction is apparent. The mixture is then made distinctly alkaline with ammonia, and maintained for 24 hours at 90°. It is then cooled, again made acid with tartaric acid, when a precipitate of iron albuminate is thrown down, which is thoroughly washed on the filter and purified by dissolving in 1,400 parts distilled water, mixed with 20 parts of 25 per cent ammonia and 20 parts of a 10 per cent solution of neutral ammonium tartrate and heated at 90° C. for 48 hours. The albuminate is then finally precipitated by tartaric acid, washed until all acid reaction has disappeared, and carefully dried.

NEW REMEDIES.

DERMASOT, sold as a remedy for sweaty feet, is said by Ch. & Dr. to be a solution of acetate of aluminum colored with fuchsin and flavored with acetic ether.

OZALIN is a fancy name for a new disinfectant, which Br. & Col. Dr. says is apparently nothing more than calcium, magnesium and iron sulphates with burnt lime and magnesia.

PHENYLXYLID-ETHANE is a recently produced disinfectant which seems to be merely a complex mixture of the sulphonic acids of this body and its homologues combined with potash.

THERMODIN is claimed to be of service as a temperature reducer in cases of typhus fever, etc. It is acetyl-ethoxyphenylurethane, and occurs in white, odorless crystals, almost insoluble, melting at from 86° to 88° C.

SALUMIN.—Riedel presents this new remedy for approval, claiming special advantage for it in the treatment of inflammatory conditions of the throat and nose. It is found to be a salicylate of aluminum.

ASAPROL and quinine salts are incompatible, when mixed in solution a resinous body appearing on the surface of the liquid. This resinous product is soluble in 90 per cent alcohol, but insoluble in water.

SANGUNAL is advocated as a blood forming medication. It is described as containing 10 per cent oxyhaemoglobin, 46 per cent of the salts existing in the blood, and 44 of freshly peptonized muscular albuminoids.

CARBOL-VASELINE.—Ap. Zig. describes the manufacture of this antiseptic salve. Vaseline is subjected to prolonged heating at 120° C., to thoroughly sterilize it, and then is mixed with carbolic acid, finally being poured while hot into tubes, which are to be hermetically sealed.

RESOL is a new disinfectant of German production, produced by treating 1,000 parts of wood tar with 9 parts caustic potash and adding 200 parts of wood spirit or other indifferent substance. It is said to be an active bactericide, being effective in 3 per cent solution.

TANNAL AND GALLAL are two new products from the house of Riedel, being respectively tannate and gallate of aluminum. The most soluble form of tannal is a double salt with tartaric acid, which is given the name of "soluble tannal," while the "soluble gallal" is its double combination with ammonia.

CREOSOTAL is creosote carbonate, a thick liquid, neutral in reaction, insoluble in water, soluble in 4 or 5 parts of cod-liver oil or olive oil, contains 90 per cent pure creosote, rich in guaiacol, and is administered best in an emulsion with the yolk of an egg, in daily doses of from 1 to 6 grams for a child and from 4 to 15 grams for an adult.

NEURODIN is a new synthetic remedy vaunted as a remedy for neuralgia. It appears in white, odorless crystals, of a melting point of 87° C., and of very slight solubility in water, about 1 in 1,400. Chemically, it is announced as acetyl-p-oxphenylurethane. It is given in doses of from ½ to 1½ grams. Its principal effect is reduction of temperature, which has been observed to be from 2¼ to 3 degrees.

KAMAREZITE.—At a recent session "of the Lower Ithenish Scientific and Medical Society, Dr. Buzz exhibited a new mineral named kamarezite, from the circumstance that it was discovered at Kamarez, in Attica. Kamarezite, which is related to fangite, is a cupric sulphate, remarkable for the very large quantity of water of crystallization it contains."

ANTHRICUMATIN is advocated for employment in cases of acute rheumatism. It is a combination of salicylate of sodium and methylene blue, occurring in dark blue crystals, soluble in water and alcohol, and of slightly bitter taste. It is given in pills in doses of from 1-20 to 1-10 grain every two hours. In passing through the body the methylene blue is decomposed and the urine is colored green.

CAFFEINE SULPHONATES are recommended as excellent remedies in the treatment of dropsy, being safe and unobjectionable diuretics. The sodium, lithium and strontium sulphonates have been placed upon the market under the names respectively of Symphorol N., Symphorol L., and Symphorol S. The sodium sulphate also appears under the title of Nasrol. It has a bitter taste, is very soluble in boiling water, but only slightly soluble in cold water.

IDOCAFFEINE is produced through dissolving in sufficient cold water 65 parts of caffeine iodide and 35 parts sodium iodide, passing hydrogen sulphide through the solution, and finally evaporating to dryness. Iodotheline is obtained in a similar way, but the preparation of iodotheobromine is a little more difficult. To a solution of sodium iodide and theobromine is added a concentrated solution of salicylic acid. The nature of these compounds has been studied and it has been found that they exert special action on the heart. Not particularly scientific combinations.

TRIKRESOL is a new antiseptic from Schering. It is a concentrated preparation of cresols intended to take the place of carbolic acid. It is a water-white, clear liquid, of creosote-like odor, soluble in water to the extent of 2.2 to 2.55 per cent, a solubility which allows of its administration in 1 per cent solution, which is as high as is ever required in surgical practice. If, however, stronger preparations are desired, they can be made with the aid of soap, alkali, etc. Frankel and Gruber show that the 1 per cent solution of trikresol is equal to a 3 per cent carbolic acid solution in disinfecting value. Trikresol is claimed to contain no carbolic acid, being composed of the meta, ortho and para cresols in the proportion of 40, 35 and 25 per cent respectively. It has the advantage over carbolic acid of being non-toxic.

THIOSAPOL is the name of a soap which contains sulphur in chemical combination. Thiosapol-sodium, containing 10 per cent of sulphur, is made by heating together 120 grams of sulphur and 1 kilogram oleic acid. The product is then thoroughly mixed with 600 grams of 25 per cent solution of soda and the excess of the liquid removed by evaporation. The sulphurated oleic acid may also be dissolved in 2 kilograms of 90 per cent alcohol, saponified by 430 grams of 35 per cent solution of soda, and the filtrate evaporated to dryness at 50° C. Thiosapol-cocconut-oil soap is made by heating to-

gether 100 grams of sulphur and 1,000 grams linseed oil until a clear solution is produced, and 1 kilogram of this product is melted with an equal quantity of coconut oil, cooled to 25° C. and then incorporated with 1 kilogram of 35 per cent solution of soda and left to stand until complete saponification takes place.

SALICYLIDE-CHLOROFORM.—Chloroform possesses the property of combining with salicylide to form a solid body, easily decomposable. Some time ago Anschuetz proposed to prepare chloroform by decomposing this body. Ch. & Dr. reports that he has not allowed the matter to drop, and we find corroboration of this in a recent statement in Pharm. Zeitung. At a meeting in Bonn he described the method of preparing the combination. On treating salicylic acid in toluol solution with phosphoric chloride, both salicylide and polysalicylide are formed, the former having a melting point of 260° to 251° C., and the latter 322° to 325° C. These two bodies are easily separated, polysalicylide being practically insoluble in boiling chloroform, while salicylide combines with it to form the compound salicylide-chloroform, containing 33.24 per cent of chloroform. Anschuetz believes the decomposition of this substance to be the means of obtaining pure chloroform, for the impurities which may be associated with the anaesthetic do not combine with salicylide, so the double compound can be freed from even traces of them by decomposition.

MORPHINE IN EXTRACT OF POPPY.—Paul & Cowley (Phar. Jour.) have examined some samples of extract of poppy and found great variation in the amount of morphine present. In the five samples under examination, percentages reported were respectively 0.72, 1.34, 1.61, 0.77, 1.14. From these results it is seen that when syrup of poppy is made from poppy extracts without reference to the amount of morphine they may contain, the preparation is liable to be twice as strong in some instances as it is in others.

ESENCIA DE CALISAYA.

A correspondent sends us the following formula for this preparation:

Cinchone muriate.....	2 ozs. 25 grs.
Quinine sulphate....	1 oz. 12½ grs.
Cinchonidine.....	1 oz. 12½ grs.
Sugar.....	40 pounds.
Cologne spirits.....	2½ pints.
Oil bitter almonds.....	30 minims.
Oil neroli.....	40 minims.
Oil cassia.....	25 minims.
Tincture vanilla.....	10 fl. ounces.
Tincture cudbear.....	2 ozs. 260 min.
Caramel.....	2 ounces.
Water, q. s.....	10 gallons.

ARTIFICIAL RUM.

A German journal gives the following recipe for producing a delicious imitation of Jamaica rum:

Roasted leather scrap- ings.....	2,000 parts.
Oak bark.....	500 parts.
Orange peel.....	20 parts.
Jamaica pepper.....	20 parts.
Catechu.....	20 parts.
Vanilla.....	20 parts.
Cloves.....	20 parts.
Spirit of wine.....	10,000 parts.

Chem. & Drug. is not very sanguine of the deliciousness of this concoction.

NITRIC ACID. Dunstan claims, is best represented by $H_2O \cdot N_2O_6$, not HNO_3 .

EXAMINATION QUESTIONS.

This department is for the publication of questions and answers from our readers; the market being to place before them questions for self-examination and to indicate the directions in which study can be profitably carried on.

We solicit questions to which replies are desired, particularly questions suggested by personal experience and study.

Correct answers to the questions in each series will be published in a subsequent issue of the paper, as announced, together with the names of all persons sending us correct replies.

Write the number of the series at the top of your reply and write on one side of sheet only.

Address—EDITOR PHARMACEUTICAL ERA,
Box 583, Detroit, Mich.

SERIES NO. 1.

Correct answers to these questions, together with the names of all persons answering correctly eight or more of them, will be published in our April 1st issue. Replies should reach us not later than March 15th, 1894.

1. Give meaning of the term evaporate, and state the difference between evaporation and distillation.
2. What is the difference between a sediment and a precipitate.
3. Give the official fluid or liquid measures, their abbreviations, and their equivalents in minims. (By "official" is understood, S. P.)
4. What is the official thermometer? Why is mercury especially adapted for use in thermometers? Convert—10° R. into degrees temperature official standard.
5. Write a prescription for a four-ounce emulsion containing 25 per cent of castor oil. Give all the ingredients to make an agreeable and homogeneous mixture, with directions for compounding.
6. What significance is attached to the terminations ate and ite in the nomenclature of salts?
7. Define fermentation. What is a ferment? Give examples (pharmacopoeial) of the products of fermentation.
8. How would you distinguish between morphine and quinine? Between corrosive sublimate and calomel?
9. Two ounces of distilled water at 15° C. will dissolve how many grains of each of the following? Potassium chlorate? Boric acid? Epsom salt?
10. State the difference between annual, biennial and perennial plants, and give an example of each.

AS A CURE FOR LIGHTNING

STROKE, the following is decidedly unique: A bed-ridden invalid in Austria suffered a stroke, which entered his body through the metal of a truss which he was wearing. The inhabitants of the village, under the impression that the lightning had remained concealed somewhere in his body, removed him forcibly from the bed, stripped him and buried him, all but the head, in a hole, which was then refilled with earth. The poor man remained in this unpleasant predicament until he was rescued by a medical man. We are not yet informed by our authority for this story (Chem. and Drug.) whether the method of cure was effective.

MEYER BROS.' DRUGGIST comments pertinently upon the fact that there are 40 or more institutions for instructing pharmacists in this country by quoting Jules Simon, who observes: "When I was young, we prepared students for life, now we prepare them for examination."

FORMULARY AND QUESTION BOX.

The object of this department is to furnish our subscribers with reliable and tried formulas and to discuss questions relating to practical pharmacy, prescription work, dispensing difficulties, etc.
Requests for information are not acknowledged by mail and ANONYMOUS COMMUNICATIONS RECEIVE NO ATTENTION. To insure answer in the next number, queries should be in our hands *ten days* prior to the date of issue.

5922. Spirits Thymol Compound.

(M. J. G.) See reply to query No. 5682, Nov. 1, 1893, page 408.

5923. Aromatic Fluid Extract Casca-Sagra Sagrada.

(M. J. G.) See formula given in reply to query No. 5782, page 501, Dec. 1, 1893, Era.

5924. Chamomilla Compound.

(Oneida.) This is a preparation which the manufacturers state to be a "mixture of the mother tinctures of cinchona, chamomilla, ignatia and phosphorus, combined with aromatics, after the formula of Dr. T. A. McBride."

5925. Elixir Cerasein Compound.

(J. H. L.) This preparation is stated to contain "cerasein," quinine and gelsemin. Just what is meant by "cerasein" we cannot say, though some manufacturers list a so-called "concentration," obtained from choke cherry, under that name.

5926. Leontine.

(Oneida) is a preparation, manufactured by Lloyd Bros., Cincinnati, O., on the label of which they state it to be an aromatized liquid containing 1 per cent of the isolated glucoside of blue cohosh, and to be useful in amenorrhoea and dysmenorrhoea.

5927. "Iron Tonic."

(C. G.) The importance of the preparation sent renders it inadvisable to make more than a superficial examination. This examination shows it to be a very heavy syrup in which is dissolved an iron salt, most likely ferric phosphate, and the syrup made darker by the use of caramel.

5928. Ducros' Elixir.

(C. G.) We have a distinct recollection of having recently seen a supposed formula for this preparation, but a pretty thorough search has failed to reveal it. Your indulgence is asked for a short time. It is advertised as being a combination of alcoholic stimulants and the nutritious properties of raw meat, and to have been used with success in Parisian hospitals.

5929. To Preserve Lemons and Leaves.

(B. & R.) Inquire how to preserve in a glass jar lemons and leaves intact, without destruction of their color. The use of alcohol is objectionable. There seems to be no definite formula for application in a case of this kind. Possibly an antiseptic solution containing, say, salicylic acid, might do the work, but we doubt it. We would like the opinions of our readers upon this subject.

5930. Granular Effervescent Salts.

(W. A. L.) In the December 1, '93, Era was published an article upon the preparation of these salts, with formulas and working directions. The instructions there given are well qualified to give successful results if carefully followed, and it is an easy matter to devise the appar-

atus you need for the quantities worked with. Your query seems to be abundantly covered by the paper in question.

5931. Compound Elixir of Fir.

(M. R. B.) Try this:
 Fluid extract tamarac bark..... 2 fl. ounces.
 Fluid extract white pine bark..... 1 fl. ounce.
 Fluid extract balsam fir bark..... 1 fl. ounce.
 Purified talcum..... 2 drams.
 Aromatic elixir N. F. 30 fl. ounces.
 Mix the fluid extracts with the aromatic elixir. Incorporate the purified talcum thoroughly with the mixture, allow it to stand for 12 hours, occasionally agitating, and filter through a wetted filter. Dose, 2 to 4 fluid drams.

5932. Family Tea.

(C. L. G.) We cannot give you the exact formula for these proprietary teas, but as a rule they are made up of crude drugs after the manner of the species or "Tea Mixtures" of the German Pharmacopoeia. A tea similar to that you mention is said to contain althaea, licorice, senna, couch grass, etc. If you will try the following formula we think you will produce an article which will give you excellent satisfaction: Moisten 25 parts of cut senna with a small quantity of water, and sprinkle over it as uniformly as possible five parts of bitartrate of potassium, allow to dry and then mix lightly with four parts each of althaea, licorice root, anise, fennel and couch grass, all bruised and cut to suitable size.

5933. Grains of Health.

(Oneida.) Dorvault's L'Officine gives the following formula on the authority of Cadet de Gassicourt:

Aloes..... 100 parts.
 Jalap..... 100 parts.
 Rhubarb..... 25 parts.
 Syrup absinthie, a sufficient quantity.

Make into pills weighing 0.1 gram each and coat with silver. Dorvault also states that according to Guibort, these pills are composed simply of aloes and extract of glycyrrhiza dissolved by the aid of heat and evaporated to a pilular consistence. Others claim they have found them to contain oxgall and tartar emetic.

5934. Headache Powders.

(M. T. A.) The following are suggested:

(1.)
 Acetanilid..... 3 grains.
 Caffeine..... ½ grain.
 Bicarbonate soda..... 3 grains.
 Make one pill, powder or wafer.

(2.)
 Acetanilid..... 3 grains.
 Salicylate soda..... 3 grains.
 Caffeine..... ½ grain.
 Make one capsule or wafer.

(3.)
 Acetanilid..... 3 grains.
 Salicine..... 4 grains.
 Caffeine..... ½ grain.
 Make in a capsule or wafer.

5935. Asthma Remedy.

(A. C. R.) The formula you name has never been published, so far as we are aware. A serviceable preparation for internal administration may be made after the following formula:

Potassium iodide..... 4 drams.
 Tincture belladonna..... 4 fl. drams.
 Spirit of ether..... 4 fl. drams.
 Fluid extract grindelia. 1 fl. ounce.
 Syrup of sarsaparilla compound, enough to make..... 4 fl. ounces.

Dose, teaspoonful, 3 or 4 times a day. See also formula No. 5396 in the Sept. 15, 1893, Era, page 251, and formula No. 5769, Dec. 1, 1893, Era, page 500.

5936. Chloro-Naphtholeum.

(L. Bros.) This is a compound which its manufacturer, R. S. West, of Cleveland, advertises for use in disinfecting drains, sinks, etc., and for the prevention of offensive odors. It is said to be made of creosote oil combined with alkali in such a way as to mix readily with cold water, and is further claimed to be non-poisonous, though acting as a good insecticide. We learn that it has considerable employment by agriculturists for application to animals to keep insects from them. It is made into about a 20 per cent solution and the animal thoroughly washed with it. Its exact composition is not disclosed, though from what is said of it, it is probably a cresol preparation.

5937. Elixir Digestivus Compound.

M. J. G.) The following formula has been communicated to the sub-committee of the A. P. A. on additions to the National Formulary:

Pepsin, soluble scales. 300 grains.
 Pancreatin..... 30 grains.
 Ptyalin, or diastase of malt..... 30 grains.
 Lactic acid..... 85 minims.
 Glycerin..... 16 fl. ounces.
 Water..... 8 fl. ounces.
 Tincture persicinis, N. F. 2½ fl. ounces.
 Talcum purified..... 1 ounce.
 Aromatic elixir, enough to make..... ½ gallon.

Add the acid to the water and glycerin, and to this mixture add the pepsin, pancreatin and diastase, and macerate until apparently dissolved. Then add the tincture persicinis and enough aromatic elixir to make 4 pints. Thoroughly incorporate the purified talcum and filter through paper.

5938. Liquid Flesh Color.

(E. W. M.) There are various pigments and coloring agents used in preparations of this kind. Here are two formulas taken from the Era Formulary:

Eosin..... 4 parts.
 Distilled water..... 80 parts.
 Glycerine..... 20 parts.
 Eau de cologne..... 300 parts.
 Spirit..... 400 parts.
 Dissolve, allow to stand and filter. According to desire, the proportions of eosine may be increased or diminished, or modified with aniline orange.

(2.)
 Water of ammoniac..... ½ ounce.
 Carmine..... ¼ ounce.
 Rose water..... 1 pint.
 Essence of rose..... ½ ounce.
 Glycerine..... 1 ounce.

5939. Menthol Liniment.

(C. C.) Here are several formulas:

(1.)
 Menthol 2 drams.
 Camphor 2 drams.
 Chloroform 2 ounces.
 Alcohol 2 ounces.

(2.)
 Menthol 1 dram.
 Oil cloves..... 1 dram.
 Oil sassafras..... 1 ounce.
 Chloroform 2 drams.
 Alcohol 1 ounce.
 Soap liniment, enough to make..... 4 ounces.

(3.)	Menthol	5 grams.
	Olive oil	45 grams.
	Lime water	50 grams.

(1.)	Menthol	3 parts.
	Chloroform	4 parts.
	Olive oil, enough to make	16 parts.

5940. Prescription Criticism.

(J. G. G. and M. C. B.) send in the following prescription for criticism:

Spirit nitre	16 ounces.
Balsam copaiba	8 ounces.
Canada balsam	4 ounces.
White honey	17 ounces.
Fluid extract cubeb	2 ounces.
Fluid extract buchu	2 ounces.
Fluid extract gelsemium	2 ounces.
Fluid extract checker-berry	2 ounces.
Ferri-ferrocyanuret	¼ ounce.
Potassium iodide	½ ounce.

One teaspoonful every hour until relieved.

This prescription is a good sample of a shotgun combination, and in whatever way dispensed would be anything but elegant. As to the chemical chances likely to take place no one can definitely determine. Spirit nitre is incompatible with potassium iodide and also with the astringent principles of the fluid extracts. Ferri-ferrocyanide is also likely to be decomposed.

5941. Blood Syrup Containing Potassium Iodide and Iron.

(E. J. F.) Perhaps no better preparation can be devised than a combination of potassium iodide and tincture of iron with compound syrup of sarsaparilla. Other alternatives may also be combined with the mixture. Try the following:

Potassium iodide	320 grains.
Tincture of iron	256 minims.
Water	2 fl. ounces.
Fluid extract burdock	2 fl. ounces.
Compound syrup sarsaparilla	8 fl. ounces.
Syrup enough to make	16 fl. ounces.

Here is a formula for a preparation, though not a syrup, has been very highly recommended as a "blood purifier."

Potassium iodide	90 grains.
Ferric phosphate	90 grains.
Sugar	1 ounce.
Fluid extract stillingia	2 drams.
Fluid extract yellow dock	3 ounces.
Fluid extract sarsaparilla	3 ounces.
Alcohol	3 ounces.

See also reply to query No. 5915 in the Jan. 15th issue, page 63.

5942. Koch's Tuberculin.

(S. B.) So far as has been authoritatively made known, tuberculin is a glycerin extract of a pure cultivation of the tubercle bacillus, and as stated by Dr. Koch, its therapeutic value is due to one active principle that is present in it to the extent of only a fraction of one per cent. In an investigation reported by Dr. Hunter in the Brit. Med. Jour. results were obtained with it that tended to show that the characteristic symptoms following the injection of tuberculin are due to three constituents at least, and that its principal constituents are albumoses (chiefly protoalbumose and deutoalbumose, together with some heteroalbumose, and occasionally a trace of dysalbumose), alkaloidal substances,

extractives of unrecognized nature, mucin, inorganic salts, glycerine and coloring matter.

Of course it would be impracticable for you to make the article, but it can be purchased in the market.

5943. Interstate Registration.

(A. H.) asks whether the Michigan Board of Pharmacy recognizes the certificates granted by the New York State Board of Pharmacy. The interchange of certificates is one of mutual agreement between the different boards. We do not believe such an arrangement exists between the Michigan Board of Pharmacy and that of New York. A licentiate of the Michigan Board of Pharmacy can be retested without further examination upon paying the required fee and furnishing a certificate from the secretary of that board that he passed the examination 5 per cent higher than was actually required. In Wisconsin, Minnesota, North and South Dakota, Washington, and Missouri. This arrangement is reciprocal, the Michigan Board recognizing the certificates granted by the Boards of Pharmacy in each of the states named. For further information write to Stanley E. Parkill, secretary of the Michigan Board of Pharmacy, Owosso.

5944. Anhydrous Lanolin.

(M. M.) This is the Adeps Lanae of the B. P. Ad. defined in that work as the purified cholesterolin-fat of sheep's wool, without the addition of water. It is officinally described as a yellowish tenacious unctuous substance; almost odorless; with a melting point varying from 100 degrees F. (37.8 degrees C.) to 112 degrees F. (44.4 degrees C.), readily soluble in ether and chloroform, sparingly soluble in rectified spirit. It takes up more than its weight of water, part of which separates out gradually, the remainder, about 30 per cent, being retained by the wool fat, with which it forms the Adeps Lanae Hydrosus of the U. S. P. and B. P. Ad. It is prepared from the washings of sheep's wool by a process which has been patented, or it may be procured by treating the wool with petroleum benzine and distilling off the benzine. The latter process has met with objection on account of the difficulty experienced in getting rid of the benzine odor. A list of tests for Adeps Lanae may be found in the B. P. Additions of 1890.

5945. Palatable Castor Oil.

(Oneda.) Every pharmacist has some little dodge of his own for rendering castor oil palatable, but it is said it may be accomplished to satisfaction by repeatedly treating it with hot water, and the addition of saccharin, until it tastes like a thin syrup. Then small quantities of the aldehyde of Ceylon cinnamon oil and some essence of vanilla are added until all traces of the scratching taste disappear.

Here is another process which may prove acceptable: Take of pitted gum arabic, 54 grams, and orange flower water, 142 grams. Make a thick mucilage with a portion of the water, and in a marble mortar mix it with 152 grams of fresh castor oil until perfectly mixed. Then add 156 grams finely powdered sugar, the remainder of the orange flower water, and 8 grams of cinnamon oil. After mixing thoroughly, raise it by gentle heat to the boiling, then cool, skim and preserve.

5946. Tooth Paste for Collapsible Tubes.

(O. S.) The following are taken from the Era Formulary:

(1.)	Precipitated chalk	8 ounces.
	Powdered cattle bone	2 ounces.
	Powdered castile soap	2 ounces.
	Carmine, No. 40 in fine powder	1 dram.
	Oil cloves	20 minims.
	Oil nutmeg	20 minims.
	Oil bitter almond	10 minims.
	Oil rose	5 minims.
	Alcohol, glycerine, honey, or syrup and water, of each	5 minims.

Beat the soap first with the water, and warm until softened, then add the remaining liquids and mix well together. In this incorporate the solid ingredients and put into the tubes.

(2.)	Honey	½ pound.
	Precipitated chalk	¼ pound.
	Powdered orris root	¼ pound.
	Carmine	2 drams.
	Oil cloves	¼ dram.
	Oil nutmeg	¼ dram.
	Oil rose	¼ dram.
	Simple syrup, enough to form a paste.	

5947. Indelible Ink.

(Student.) The following are taken from the Era Formulary:

(1.)	Silver nitrate	50 grains.
	Tartaric acid	40 grains.
	Carmine, No. 40	5 grains.
	Water of ammonia	½ ounce.
	Mucilage gum arabic	½ ounce.

Dissolve the silver nitrate in the ammonia, and add the tartaric acid; then rub the carmine with the solution. Lastly, add the mucilage. This ink is red when first written with; on the application of heat it soon changes to black.

(2.)	Silver nitrate	125 parts.
	Water of ammonia	250 parts.
	Soda (commercial)	175 parts.
	Mucilage acaela	375 parts.
	Boiling water	125 parts.

Dissolve the silver nitrate in the water of ammonia, and separately the soda in the boiling water and mix; add the mucilage and set in the sun until the mixture becomes brown.

(3.) Here is a formula for red indelible ink. Make three solutions, as follows:

(a.) Dissolve 3 drams of sodium carbonate and gum arabic in 12 drams of water.

(b.) Dissolve 1 dram platinum chloride in 2 ounces of water.

(c.) Dissolve 1 dram stannous chloride in 4 drams distilled water.

Moisten the place to be written upon with solution (a) and dry with a warm iron. Then write with (b), and when dry moisten with solution (c).

5948. Removing Indelible Ink Stains.

(Student.) The staining principle of ordinary indelible ink is nitrate of silver, and may be removed in several ways:

(1.) Apply to the stain a solution of 10 grains of cyanide of potassium and 5 grains of iodine in an ounce of water; or a solution of 8 parts each of bichloride of mercury and muriate of ammonium in 125 parts of water. Care should be exercised in handling these solutions, as they are both poisonous.

(2.)

A solution of iodide of potassium will freely dissolve iodine. Silver stains moistened for a while with this solution will be converted into iodide of silver, which is soluble in excess of the potassium iodide. The stains will have disappeared when the cloth, after the foregoing treatment, is washed in water.

Here is a process taken from the Era Formulary:

Chloride of copper completely removes, even from colored woven cotton tissues, stains occasioned by nitrate of silver; the tissue is afterwards washed with a solution of hypo-sulphite of sodium, and next thoroughly washed with water. From white cotton and linen tissues, the stains are more readily and effectually removed by applying dilute solution of permanganate of potassium with hydrochloric acid, followed by washing with hypsulphite of sodium solution, and rinsing in plenty of fresh water.

59.0. Shellac In Waterproof Ink.

(Subscriber.) The following is said to be a satisfactory formula: Shellac 15 parts, borax 8 parts, gum arabic 8 parts, lamp black 10 parts, water 130 parts. Add the water to shellac and borax, both finely pulverized, and boil with constant stirring until all the shellac is dissolved. Filter the solution through blotting paper. Mix the gum arabic, in fine powder, with the lamp black in a mortar. Put the mixture of gum arabic and lamp black into the vessel used for boiling the shellac, borax, and water, and after pouring some of the filtered fluid over it, heat to boiling. When all the gum arabic is dissolved, gradually add, with constant stirring, the rest of the fluid, and set the whole aside for a few days to allow the coarser particles of the lamp black to settle. The finished ink is carefully decanted, or siphoned off from the sediment.

A very resistant writing fluid is also obtained by simply boiling shellac with water, the lamp black being only added to impart a darker color to the ink. As a substitute for the lamp black, the decoction of shellac and borax may, after filtering, be mixed with a corresponding quantity of indigo-carmine, or of a very concentrated logwood chrome ink.

59.50. Glass Stoppers, To Loosen.

(W. H. H. S. & S.) Here are several methods, one of which is certain to prove effective:

(1.) Hold the bottle or decanter firmly in the hand or between the knees, and gently tap the stopper on alternate sides, using for the purpose a small piece of wood, and directing the strokes upward.

(2.) Plunge the neck of the vessel in hot water, taking care that the water is not hot enough to split the glass. If the stopper is still fixed, use the first method.

(3.) Pass a piece of lint around the neck of the bottle, which must be held fast while two persons draw the lint backwards and forwards.

(4.) Warm the neck of the vessel before the fire and when it is nearly hot the stopper can be removed.

(5.) Put a few drops of glycerine or oil around the stopper where it enters the glass vessel, which may then be warmed before the fire. Then apply process No. 1. If the stopper still continues immovable, repeat the above process until it gives way, which it is almost sure to do in the end.

4.) Take a steel pin or needle and run it

around the top of the stopper in the angle formed by it and the bottle. Then hold the vessel in your left hand and give it a steady twist toward you with the right, and it will very soon be effectual. If this does not succeed, try process No. 5, which will be facilitated by it.

59.51. Books on Grasses, Fungi and Insects.

(L. S.) The various contributions from the U. S. National Herbarium, published by the authority of the Secretary of Agriculture, Washington, contain much information regarding the subject of grasses and fungi. Among these may be mentioned a "Monograph of the Grasses of the U. S. and British America," by Dr. Geo. Vasey, issued by the department February 25, 1892; Bulletin No. 12, "Grasses of the Southwest," part I. issued October 13, 1890, and part II. issued December 1, 1891; Bulletin 13, "Grasses of the Pacific Slope," part I. issued October 20, 1892, and part II. issued June 1, 1893. The Agricultural Department has issued other literature upon the subject, information concerning which may be obtained by addressing the Botanist, Department of Agriculture, Washington. A work of considerable value, not published by the government, is "The True Grasses," by Edward Hackel, translated from Die Natürlichen Pflanzen familien (Engler and Prantl), by F. Lamson-Scribner and Effie A. Southworth. For a list of books upon the fungi of the U. S., see reply to query 112 in the Apr. 15, 1893, Era, page 350. In connection with the books there named may be mentioned "Handbook of Mosses of N. E. America," by Mrs. E. G. Britton; also Macoun and Kindsberg's "Catalogue of Canadian Plants," part VI., "Musci," a work of some 300 pages, published by the Geological and Natural History Survey of Canada. For information regarding books upon insects, etc., write Dr. C. V. Riley, Entomologist, Department of Agriculture, Washington, D. C.

59.52. Mucilage of Irish Moss.

(M. B.) We can suggest no better formula than the alternative process given in the National Formulary. As stated in the note appended to the formula, the mucilage may be made clear by diluting it when freshly made and still hot, with about 3 volumes of boiling water, filtering and then evaporating the filtrate to a volume corresponding to the proportions used. In 187 Emien Painter, in a paper read before the American Pharmaceutical Association, described some experiments made by him with a view of producing Irish moss gelatin suitable for any purpose for which the gelatin is useful. The apparatus consisted of a cylindrical metallic percolator, 18 inches high, tapering slightly, from 4 to 6 inches in diameter, and surrounded by a water-jacket. The lower extremity of the percolator terminates in a tube $\frac{3}{8}$ in. in diameter, which is bent at right angles and passes through the side of the water-jacket, the tube terminating in a $\frac{3}{8}$ -inch bibb. A conical shaped bag made of cheese cloth, of about one-half the capacity of the percolator, is filled with selected Irish moss, previously washed in cold water. The bag is then suspended in the percolator, the water-jacket and percolator both filled with water, and the apparatus placed over the fire. After being kept at the boiling temperature for about two hours the bibb is opened and the clear, mucilaginous liquid drawn off,

which, upon evaporation and spreading upon plates of glass, yields a beautiful, transparent gelatin. This gelatin, when dissolved in water, makes a perfectly clear mucilage and one claimed by its author to be in every way satisfactory.

59.53. Orange Cider.

(C. B. H.) The following process has been recommended: Express the juice of sweet oranges, first crushed and allowed to macerate over night, adding an equal quantity of water and one pound of sugar or glucose for each gallon of juice (or two gallons of diluted liquid), allowing it to stand in a vessel covered so as to exclude the air, but with an opening to allow the escape of carbonic acid gas formed during the fermentation. The mixture should be kept in a moderately warm temperature (89°-90° F.) until the fermentation is completed, when the clear liquid is drawn off and preserved in tightly stoppered vessels.

Here is another process: Boil 40 pounds of sugar for $\frac{1}{4}$ hour with 13 $\frac{1}{2}$ gallons of water. At the same time press and filter the juice of 75 oranges and mix it, together with the rinds, with the sugary fluid after the latter has been cooled off to about 85° F. The mixture is then poured into a cask and frequently stirred during 3 or 4 days, when the cask is bunged and placed in a cellar for six months, when the clear liquid is drawn off.

The following formula for a similar product, under the name of "orange wine," is taken from the Cyclopedia of Receipts: The oranges must be perfectly ripe. Peel and cut them in halves crosswise of the cells; squeeze into a tub. The press used must be so close that the seeds cannot pass into the must. Add 2 pounds white sugar to each gallon sour orange juice, or 1 pound to each gallon sweet orange juice, and 1 quart water to each gallon of the mixed sugar and juice. Close fermentation is necessary. The resultant wine is amber-colored, and tastes like drk hock, with the orange aroma. Vinegar can be made from the refuse, and extract from the peels.

59.54. Camphor Cream.

(Kenilworth.) Several different kinds of preparations are put up under this title, the following being representative formulas:

(1.)

Quince seed, in coarse powder.....	60 grains.
Hot water.....	14 fl. ounces.
Borax, powdered.....	60 grains.
Glycerin.....	2 fl. ounces.
Spirit camphor.....	1 fl. ounce.
Oil bitter almond.....	10 minims.

Macerate the quince seed for half a day with the water and strain. Mix with the glycerin. Dissolve the oil bitter almond in the spirit of camphor and gradually add to it the mucilage of quince, etc., and mix thoroughly.

(2.)

Camphor.....	6 drams.
Oil turpentine.....	6 drams.
Ammonium chloride.....	12 drams.
White castile soap, in shreds.....	12 drams.
Water of ammonia.....	1 $\frac{1}{2}$ ounces.
Distilled water.....	12 ounces.

Dissolve the soap in half of the water, with the ammonia, and the ammonium chloride in the other half of the water. Then mix the two solutions, add the camphor previously dissolved in the turpentine, and shake briskly until a perfect emulsion results.

(3.)	White wax.....	2½ troy ounces.
	Spermaceti.....	2½ troy ounces.
	Camphor.....	1½ troy ounces.
	Oil sweet almond.....	16½ fl. ounces.
	Distilled water.....	9 fl. ounces.
	Borax.....	75 grains.
	Coumarin.....	3¼ grains.
	Oil of Rose.....	22 minims.
	Oil French geranium.....	5 drops.
	Oil ylang ylang.....	5 drops.
	Oil bitter almond.....	2 drops.
	Oil orris.....	1 drop.
	Tincture musk.....	10 drops.
	Tincture civet.....	5 drops.

5555. Syrup Chloride of Iron.

(S. B.) The French Codex directs the syrup of ferric chloride to be made by the addition of 15 parts of solution of ferric chloride, F. P., to 985 parts of syrup. Twenty grams of this syrup contain 10 centigrams of ferric chloride. It should be prepared extemporaneously.

Hager gives the following under "Syrupus Ferri Sesquichlorati":

Ferri sesquichlorati crys. 5 grams.
Syrupus sacchari.....1,000 grams.

This formula contains 8 parts of ferric chloride in 1,000 parts of finished product, while the preparation of the Codex contains only 5 parts.

One of our exchanges suggests the following formula for tasteless syrup of chloride of iron, representing approximately 40 drops of the tincture of ferric chloride to the ounce of finished product.

Tincture ferric chloride..... 1 fl. ounce.
Sodium citrate..... 1¼ troy ounces.
Water..... 6 fl. ounces.
Sugar..... 9 troy ounces.
Syrup, enough to make..... 16 fl. ounces.

Mix the tincture of ferric chloride with the water and dissolve in this mixture the sodium citrate and sugar with the aid of heat. When cold add sufficient syrup to make 16 fluid ounces.

A syrup of ferrous chloride may be made by the following method:

Solution ferric chloride..... 320 minims.
Glycerin..... 4 fl. ounces.
Syrup, enough to make..... 16 fl. ounces.

Mix and expose to the sun until entirely colorless. Three or four days will be sufficient in summer, and six to eight days in the coldest weather. The reduction can be promoted by heating the syrup before exposing it to the sun.

This one is taken from Hager's Manual and Praxis:

Ferrous chloride..... 30 parts.
Hydrochloric acid..... 3 parts.
Syrup..... 480 parts.
Dissolve.

5556. Insolubility of Sulfonal.

(J. E. G.'s son and M. C. B.) The following prescription is sent for comment:

Sulfonal..... 1 dram.
Water q. s. to make..... 4 ounces.
M. Sig. 1 dram every 2 hours.

In commenting upon this prescription our correspondent makes salol (rather than sulfonal) the subject of his remarks, saying that he informed the doctor the latter drug was insoluble and asked if it was proper to dispense it in powder, capsule or pill. The physician directed him to dispense it as ordered and put a shake label on the bottle. Upon mixing with water the drug would not, with any amount of shaking, become evenly dispersed through the liquid. The prescrip-

tion was for a child six years old. Either sulfonal or salol is insoluble in the proportion of water given, and salol being insoluble in almost any proportion. Further, salol does not seem to mix with water, not becoming wet and as a rule floating upon the surface of the liquid. Our correspondent did rightly in objecting to dispensing the prescription as written, for it could not be produced in satisfactory form. If left to his discretion, he could have dispensed the salol through emulsification with a little almond oil and acacia, while sulfonal can be dispensed with mucilage of acacia alone. It is best, however, whenever possible, to dispense these highly insoluble articles in capsule or pill.

5557. Gummy Sponges.

(J. H. E.) The sponge is now generally conceded to be an animal. When first taken from the water it is covered with gelatinous matter from which it is afterward cleaned, leaving the cellular structure or what may be called the frame work of the animal alone. Various processes of cleaning and preparing for the market leave the sponge in a quite clean condition, though it frequently happens that the inner portions are not thoroughly clean. The gummyness of which you complain, however, is due to improper use of the sponge. Alkalies especially act upon it to break down the structure causing distinct chemical change in it. Then, too, if the sponge be left moist after using so that it cannot become dry within a reasonable length of time, a peculiar fermentation is apt to take place which destroys the structure of the sponge. When sponges become thus gummy it is very easy to tear them apart, and they are practically of no service. We do not believe that, having once reached this gummy stage, they can be restored to anything like their original appearance and quality, as there has been a definite destruction of their substance. If, however, the sponge is merely unclean, loaded up with dirt of whatever nature, you may have some success in subjecting it to a thorough cleansing operation. After thoroughly washing with soap and subsequent rinsing, soak the sponge in a 4 per cent solution of permanganate of potassium, wash, soak in a 25 per cent solution of sulphurous acid, rinse and dry. We have little faith, as intimated above, in any process to restore the sponge if it has passed into the gummy stage complained of.

5558. Analysis of Bronzing Liquid.

(C. H. H.) asks if a liquid which has been mixed with bronze powder can be analyzed by chemists after it has stood in combination for some time, and he farther asks if what is technically known as the "binder" in such a liquid can be made the subject of a patent in order to prevent others from using the gums employed therein. We do not think that a competent analytical chemist would be unsuccessful in ascertaining the identity of the liquid made. He might have some little difficulty in accurately identifying the variety of gum, but from the results he could obtain he could doubtless devise a preparation which would be near enough for all practical purposes. Bronze powder mixed with these liquids is not very liable to chemical change in the composition of the latter. As to patenting such a mixture, we believe it would be an unwise step, if you wished to keep the sale of it entirely to yourself. It

would be better to take out trade mark rights to it. Thus, you could call it Smith's Bronzing Liquid to distinguish it from Jones', or you could adopt some fanciful title or design for your trade mark and label, which would give you full protection against the infringement from other parties. In patenting a preparation of this nature you would be obliged to disclose its constitution to the patent office, from which department any one could obtain a copy of the patent, with your full formula, upon the payment of a very small charge. If you will write to the U. S. Commissioner of Patents at Washington, you will be supplied with pamphlets which will show you just how to take out a patent or copyright and inform you of the limitations of personal rights covered by either.

5559. De Conge's Balsamic Pectoral Syrup.

(C. G.) This being, as you inform us, a preparation of local manufacture, and so far as we can learn of local reputation and sale only, we can give you no information as to its exact composition, having never seen the article i. c. r. heard of it before. We would offer you, however, the following formulas for excellent balsamic pectoral syrups, one of which, perhaps, may serve you satisfactorily:

(1.)

Cherry laurel water... 1½ ounces.
Solution acetate morphine..... 1½ ounces.
Dilute sulphuric acid.. 1½ ounces.
Tincture saffron..... 1 ounce.
Orange flower water.. 3 ounces.
Glycerine..... 6 ounces.
Decoction Iceland moss..... 14 ounces.
Simple syrup..... 16 ounces.
Dose: 1 teaspoonful.

(2.)

Cherry laurel water... 1½ ounces.
Syrup wild cherry..... 3 ounces.
Solution acetate morphine..... 1½ ounces.
Dilute sulphuric acid.. 2 ounces.
Rose water..... 4 ounces.
Syrup poppies..... 40 ounces.

Dose: One teaspoonful undiluted, when the cough is troublesome.

The following formula is taken from Dorvault's L'Officine, under the title "Sirope Pectorale Balsamique":

Ipecac..... 10 parts.
Infusion red poppy..... 350 parts.
Vin de Bourgoyne..... 500 parts.
Tincture tolu..... 12 parts.
Extract opium..... 1 part.
Sugar..... 1000 parts.

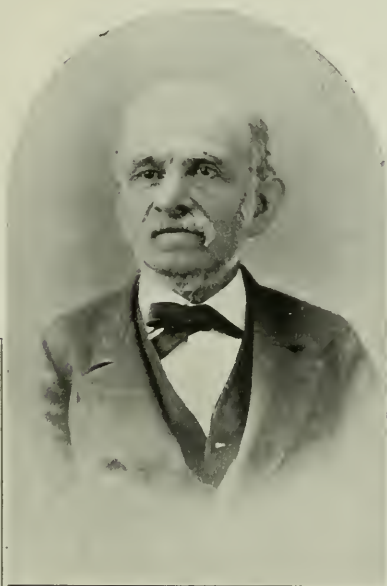
Formulas and Information Wanted.

(M. M.) Phillips' Tonic.

(W. D. N.) Walker's Vigorene.

(W. H. N.) Red Butter.

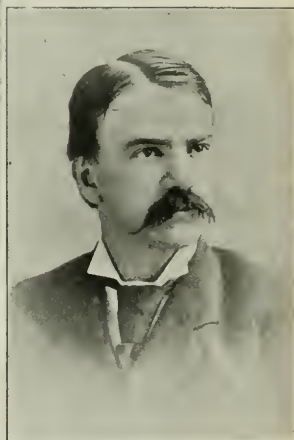
A. P. A. ENTERTAINMENT EXPENSES. Local Secretary Henry Broth, of the Chicago meeting of the A. P. A., reports that he received a total of \$1,823.56, which was contributed in the following amounts. Wholesale druggists, \$1,100; retail druggists, \$1,260.50; manufacturers, \$636; Chicago fund for the entertainment of the Illinois Pharmaceutical Association, \$367.57; sale of tickets, \$75; from other sources, \$14.50. The total expenses were \$4,830.85, divided among entertainments, \$3,320; printing and miscellaneous, \$237.70; and other expenses, \$1,510. Some one had to go down into his pocket for \$7.30.



SOLOMON CARTER.



CHAS. A. KILHAM.



FRED. L. CARTER.



HERBERT L. CARTER.

CARTER, CARTER & KILHAM.

See page 115.

NEWS COMMENT.

The Columbus, O., Druggists' Association includes in its membership every druggist in the town, 82 in number.

A druggist of Grand Island, Neb., was fined for throwing advertising bills around the streets and pasting them on the sidewalks.

Druggist Weatherhead, Cincinnati, displays a sign stating that he has sold at retail 1,000,000 of a certain brand of cigars during the past year.

A drug store sign in St. Peter, Minn., is a novel one, the name of the druggist being spelled out in electric light which alternates from red to white.

Students of the Montreal College of Pharmacy held their annual dinner the evening of January 11. The banquet was a fine one and the speeches finer.

A Canadian paper states that twenty-seven pharmacists throughout the provinces have been challenged for selling adulterated pharmaceutical tinctures.

The Wells-Yeager-Best Company has been incorporated in Lafayette, Ind., with a capital stock of \$100,000, for carrying on a wholesale and retail drug business.

Virginia druggists are trying to secure certain important amendments to the pharmacy act, or, rather, the passage of a new bill to supersede the one now in force.

According to the Kentucky pharmacy law, all druggists were required to re-register before January 11. It is stated that a number have failed to comply with this requirement.

John L. Curry, who since 1889 has conducted a drug store at Second and Calowhill streets, Philadelphia, left January 13 for a few months' pleasure vacation in the Bermudas.

W. A. Kendall has purchased the interest of his brother in the firm of W. A. Kendall & Co., druggists, at Buffalo, N. Y., and will hereafter conduct the business under his own name.

Harnist & Dale, druggists of Edwardsville, Ill., are finding very serviceable a unique advertising scheme, which consists of placing signs at street corners giving the name of the street and under them an advertisement of their business.

For some time members of the Hartford, Connecticut, Druggists' Association have observed a Sunday closing agreement, but the backsliding of two or three members has occasioned abandonment of the scheme.

A young man in the employ of Finlay & Brunswig, wholesale druggists of New Orleans, was seriously cut by the explosion of a bottle of colloidion into which, for some unexplained reason, he was introducing gunpowder.

The superintendent of the St. Louis City Hospital says that if people would wash out their mouths twice or three times a day with an antiseptic solution there would be a great decrease in the amount of sickness.

The United States Government is sustaining a cut-rate patent medicine drug store at the Soldiers' Home, Dayton, O., \$1 articles being sold for 85 cents. The local drug association have called the matter to the attention of congressmen from their district and hope to have the matter properly adjusted.

Sensational reports are appearing in the newspapers to the effect that the body of W. C. Shortt once a well-known young druggist of Louisville, Kas., but who for many months has been among the mysteriously disappeared, has been found in the pickling vat of a medical college in Atlanta, Ga.

H. Pratt McKean died in Philadelphia January 5, at the age of 81. He was a very wealthy man, having acquired his riches in early life through trade in China. He was a large exporter to that country of ginseng, in return for which he received teas and silks. He was a well-known business man of Philadelphia.

The store of the Jacobs Pharmacy, at Atlanta, Ga., was badly damaged by fire couple of weeks ago, the loss being estimated at nearly \$100,000 on an insurance of \$60,000. The fire originated in the second story, thence quickly extended to the large stock of patent medicines, etc., on the third floor. The flames and water together did wholesale havoc.

David Wilson, a hermit in Robinson, Ohio, died a few days ago. At one time he was the owner of a drug store in Cincinnati, which he kept locked for twenty years, being, as he said, instructed by the devil not to open it. He lived by himself in a house which he claimed belonged to Christ. He was at one time one of the best physicians in the state, but became deranged. He leaves a large estate, said to be worth over \$100,000.

W. H. Syfert, Dayton, O., is having placed in his drug store a handsome Tufts' fountain, having a value of \$3,000, which contains twenty-six syrup jars and is equipped with six draught arms. A French plate mirror 556 feet and a new 15-foot antique oak counter are attractive adjuncts to the fountain. This store also boasts of its large stock of homeopathic remedies, which it is claimed is the largest in the state.

Montgomery & Parker, Quincy, Ill., druggists, are out \$150 through having cashed a worthless check for a traveling man whom they thought they knew, as they had been acquainted with him for a number of years. The draft was on a Detroit bank and the salesman claimed to be representing one of Detroit's white lead concerns, showing papers and letters in support of his statements. Those at the Detroit end disclaim any knowledge of the swindler.

J. D. Mitchell, a commercial traveler, went to Grayson, Va., about a year ago to sell goods. He was soon taken ill with the measles, and the spreading of the disease caused the death of several persons. The authorities looked up a provision in the code and fined Mitchell \$1,500. The Legislature of the State has just passed a bill to relieve Mitchell from the payment of this fine. It is bad enough to have the measles without having to pay for the privilege.

Milwaukee druggists have been up in arms against the proposition of the telephone company to place in the drug stores automatic nickel-in-the-slot telephones. Some of the druggists objected to this method from the fear that the drug store telephones would be neglected in favor of those of other subscribers who might be willing to let the people use the instrument for nothing. Some sort of a compromise has been effected between the retailers and the company.

A. F. Files, for six years druggist at Maumee, O., has sold his store to his clerk, L. A. Eckert, and goes west prospecting, intending to secure a clerkship at Denver while seeking a suitable opening to establish a new business.

In a Booneville, Mo., drug store the boy, a young negro, found a rubber tube connected with a barrel of alcohol, and thinking it a good chance to get drunk sucked away at it for a considerable length of time. He was later discovered in a very intoxicated condition and died in a few hours.

J. A. and Dr. McAlpine, Vancouver, B. C., were fined \$75 and costs each under the pharmacy act by the police magistrate. Their offenses consisted in employing unqualified assistants, selling poisons without license and failing to pay their fees to the Pharmaceutical Society. They appealed their cases in the County Court, and Justice Bole quashed the magistrate's decision. A similar result followed in Victoria, Westminster and Nanaimo, B. C. The judges ruled that under the act a druggist who offended similarly to the defendants could not be prosecuted. In other words, the act was imperfectly drawn up and in its present shape was useless. Already the Druggists' Council of British Columbia are hard at work drafting another act for submission to the Provincial Government at their next session.

The newspapers inform us that a young man in Alleghany, Pa., has invented a bottle which cannot be refilled without breaking. It is believed this will prove an excellent article for patent medicine manufacturers, whisky dealers and the like, who find that their bottles are often opened and emptied and refilled with fraudulent concoctions by unscrupulous parties. The invention is rather blindly described as consisting of a small groove in the neck of the bottle which admits the insertion of a piece of glass made in such a manner that a round, flat disc fits over the main spring in place of a cork. The bottle is filled and the neck is fitted over and capped by a small steel spring on the inside. Once in position, it cannot be removed without shattering the glass. Fluids can be poured out of the bottle, but not into it. We await further enlightenment.

On December 26, 1893, occurred the death of T. J. Looney, Jr., a well known apothecary, Portland, Me. Mr. Looney was born in Portland in 1836 and was a graduate of the Portland High School. At the age of fourteen he entered the employ of Emmons Chapman, corner of Middle and Exchange streets. Here by dint of study and strict attention to business he reached the top of the ladder, becoming manager of the store by the death of the proprietor. He afterward went west and was at the head of the prescription department in the beautiful store at Central City, Colorado, then owned by John Best and known as Best's Pharmacy. He returned east to his native city and owned and conducted a retail apothecary store corner of Franklin and Middle streets. The deceased was well known throughout Maine and Massachusetts, being a registered apothecary under both state laws. Hon. Wm. H. Looney and Miss Mary E. Looney, teacher in the public school, are the surviving brother and sister.

AN OLD FIRM IN A NEW HOME.

In the last few years the business of Carter, Carter & Kilham, of Boston, has increased to such an extent (double what it was in 1885) that new quarters have been imperatively required, and, with enterprise characteristic of this old house, a building for the exclusive use of the firm has been erected in an eligible situation on Merrimac street, corner of Friend street, within a moment's walk of the new union railroad station. In deference to the wishes of many customers, the firm has been desirous of giving up the retail business, which was almost a necessity in the old location. This will now be done, attention being confined strictly to the wholesale and jobbing trade.

The front of the new building, which extends for 100 feet along Merrimac street facing Warren Square, is of red brick and Berea sandstone. It is an adaptation of the Italian Renaissance to the needs of a modern American business building. The building is most carefully and thoroughly constructed. The special features of the front are the exceptionally large plate-glass show windows, and the artistic treatment of the fifth story openings and cornice. The architect is Arthur H. Bowditch, of Boston. The building is furnished with a large electric elevator and two smaller pneumatic elevators. There are also pneumatic tubes connecting each floor with a central station, near foreman's desk on the second floor. The basement is furnished with fire-proof vaults for storage of costly essences, oils, and chemicals. Here also are located the boiler room and pumps. The street floor has a 15 foot stud with a mezzanine covering about two-thirds of the same, but so skilfully arranged as not to give one an oppressive feeling. A part of this floor is used for receiving and delivering goods; the rest for the counting-room, private offices, salesroom and billing department, telephone room and pneumatic station. There is telephonic communication from this story with all parts of the building. This floor is finished in oak, with cases and tables for the advantageous display of samples of each line of goods dealt in by the firm. The mezzanine is for chemicals, sponges, chamois, toilet articles and rubber goods. The second floor contains a complete system of balconies, and shelved uprights, for the accommodation of patent medicines and pharmaceutical preparations. This floor is also the main work-room, where all orders are collected and packed ready for shipment. On the third floor there are convenient arrangements for barrels, bins and cases; also storage room for full packages. The fourth floor contains the liquor and wine room, and the rest is used for glassware and sundries in open packages. On the fifth floor are found the laboratory with the bottled specialties, and the oil and tincture department. In the rear part of this floor there is storage space for patent medicines.

Solomon Carter, the originator of the firm, was born in Lancaster, Mass., Jan. 19, 1816. After serving as an apprentice in the drug stores of Gregg & Hollis and Thomas Hollis, he began a retail business in 1837 at the West End. Removing to Hanover street, he continued in the wholesale and retail business for about twenty-five years, under various styles;



CARTER, CARTER & KILHAM'S NEW PREMISES.

then he sold out and formed a new concern on Washington street, opposite School street, under the style of Carter & Wiley. Some time afterward he bought out Mr. Wiley and formed a new connection under the style of Carter, Harris & Hawley, doing business at 356 Washington street. The present firm was formed in 1886, Messrs. Harris and Hawley retiring, and Fred L. Carter and Chas. A. Kilham being admitted. On January 1, 1892, Herbert L. Carter was admitted to the firm. When Solomon Carter died the firm continued under the same name, the estate of Solomon Carter remaining as a partner.

Fred L. Carter, son of Solomon Carter, was born in Boston, October 30, 1849. On leaving school he went to the firm of Carter & Wiley as a boy, worked along through the different departments, and for twelve years was a traveling salesman. As stated, in 1886 was admitted to the firm. Since his father's death he has been the senior partner. Indeed, for the two or three years previous he attended to the responsible duties usually performed by the elder partner.

Chas. A. Kilham was born in Wenham, Mass., December 18, 1853. He entered the employ of Carter & Wiley as a boy, in 1871; became entry-clerk, and then a traveling salesman. With F. L. Carter, he was admitted to the firm in 1886. During the last three months Mr. Kilham has given most of his time to the firm's new home, and it is due to his watchful care that the building has been made so convenient.

Herbert L. Carter, the junior member, was born in Boston, April 16, 1852. On leaving school he worked for the Boston house of A. T. Stewart, afterward becoming entry-clerk for Carter, Harris & Hawley. He then became the city salesman. He was admitted to the firm in 1892.

The firm has always been popular in the trade, Solomon Carter in particular, having always been a favorite with old and young. Probably no one in the business has kept so many faithful employes so many years. The trade has been fa-

miliar with the bookkeeper, Geo. F. Hawley, for more than thirty years. One salesman, Jos. E. Melgs, has been with the different firms for twenty-five years. The head entry-clerk, Wm. T. Hilliard, has served for twenty years, and other employes, not so well known, began with Mr. Carter from thirty to thirty-five years ago.

The regular quarterly meeting of the Trade Association of the Philadelphia Druggists was held January 9, President Kratz in the chair. The subject of closing stores at least a portion of each Sunday was continued from the preceding meeting, and it would appear that considerable progress has been made, but it is doubted very much if the custom will obtain universally in a large city like Philadelphia, where the druggists will never act as a unit in anything to improve their condition. Some druggists always have closed, and it would seem as if the matter will have to be left to individuals to decide as their feelings or imagined interests may prompt. Those who close say they do not find any loss of custom, however. The attention of the meeting was called to the well-known fact that the state board was continually baffled in its attempt to carry out the provisions of the pharmacy act. This applies particularly to the section requiring properly qualified persons to be left in charge during any temporary absence of the proprietor, and in fact even, of such persons themselves conducting a drug store. Our association is earnestly requested to co-operate with the state board. Further consideration of the subject was deferred until the next meeting. Adjourned. E. T. Ellis, secretary.

One of the finest drug stores in the West is being fitted up in the San Marco building, East Walnut Hills, Cincinnati, O., by A. E. Diebold.

Frank L. Grothe, Ph. G., has purchased the drug store formerly occupied by Dr. John H. Rendigs, Spring and Abikall streets, Cincinnati, O.

BOSTON.

Boston, January 25.—It is said that more than 95 per cent of the retail druggists of Boston and its vicinity have agreed to stand by the Detroit plan, adopted at the last meeting of the National Wholesale Druggists' Association. One of the largest and most enthusiastic meetings of druggists ever held in Boston crowded Garfield Hall, No. 1125 Washington street, the other day, and the first steps towards putting the plan in operation in this part of the country were taken. N. W. Stiles presided, and F. W. Iteevess was secretary. Just what was done at the meeting those present refuse to state, except that the movement has surpassed anything in the history of the drug trade, and that the plan will be put into effect with a suddenness and effectiveness which will astonish the cut-rate firms. The retailers appear confident that the manufacturers will join with them. It was reported at the meeting that Rhode Island had organized and secured about 85 per cent of the retailers, while in both Springfield and Worcester every retailer had joined the Interstate League, except one in each city. New Hampshire has three branches, Lowell has a strong organization, and favorable reports were received from other places. There is no doubt but this movement is going to be more extensive than anything the trade has ever seen, for there are men at the head of it who usually mean business, but have formerly kept clear of such movements.

In a decision just filed by the full bench of the Supreme Court in the case of Franklin H. Gould vs. W. H. Emerson, a peculiar mistake which occurred in 1886 is set right. The parties to the suit were a firm of druggists in North Attleboro, and in 1886 agreed to dissolve the copartnership; the plaintiff was to take the goods on hand and pay the defendant his interest therein. The value of the goods was set at \$18,000 and the plaintiff gave the defendant his note for \$8,000, which has since been paid. There was no mistake as to this. But the plaintiff had withdrawn from the funds of the firm \$10,000 more than the defendant had, and, to make this right between the parties, the plaintiff would have to restore the \$10,000 to the firm, or pay the defendant, for his share, \$5,000. "Instead of doing this, by sheer inadvertence or ignorance of what is plain," says the Court, "the plaintiff gave his note for \$10,000 to the defendant. This gave the whole of a sum which belonged to the firm, and which defendant was entitled to only one-half of. The mistake, though gross, was mutual and innocent, and the plaintiff, at any time, upon discovering it, might have had a bill in equity for relief against it." The plaintiff on discovering the mistake in 1893, after paying interest on the \$10,000 note for seven years, brought the present suit, and the conclusions of the Court is that the plaintiff, "upon the facts, would be entitled to have the original note for \$10,000, upon which he has paid \$8,000, surrendered and canceled and have the overpayment of \$1,000 refunded, and also have the interest refunded which he has paid in excess of the interest due on the \$5,000 which he justly owed. The \$10,000 note should be treated as valid for \$5,000 and all payments of principal and interest in excess of what would have been due if the note had been \$5,000 should be re-

funded." As the plaintiff owed the defendant \$1,000 borrowed money the decree is to be modified so as to allow of the payment of that sum.

Simon B. Harris, of Lowell, has been appointed state inspector by the board of pharmacy, and he will at once make a tour of the state, visiting all of the drug stores for the purpose of securing the names of "druggists" who carry on business without the services of registered clerks, as well as the men who hire registered clerks to carry on the drug business. A report giving the standing and reputation of every druggist visited will be filed with the state board, who will act upon them in turn. Mr. Harris says of this matter: "Since I received my appointment I have visited drug stores in Holyoke, Fall River, Worcester, Haverhill and a portion of Boston. In Fall River I found a druggist doing business on a certificate which was owned by a clerk in the freight house in that city. I called on the clerk and he told me he received a certain amount each week for the loan of his certificate. I found in another instance that the owner of a pharmacist's certificate was paid \$3 a day by the holder of a sixth-class liquor license for the use of his certificate. In Boston I found a man who made it a business of being examined before the state board of pharmacy for druggists' certificates. These certificates he sold, taking at the examination the name of the intended purchaser. In Fall River I told the city marshal I wanted to work in co-operation with the local police in each city. The marshal told me he would bring the matter to the attention of the mayor and aldermen. I receive encouragement from all the reliable druggists of the state in the work assigned me."

Subjoined is the text of one of the bills just introduced in the Massachusetts legislature relating to the granting of licenses to druggists to sell liquor:

Section 1. No license of the sixth class described in section ten of chapter one hundred of the Public Statutes shall hereafter be granted to any person who is not a registered pharmacist, actively engaged in business on his own account; nor to any such registered pharmacist unless he shall present a certificate from the state board of registration in pharmacy stating that, in the judgment of said board, he is a proper person to be intrusted with such license, and that the public good will be enhanced by the granting of such license.

Sec. 2. For each certificate so granted by the board of registration in pharmacy said board shall be entitled to receive a fee not exceeding one dollar, to be paid by the applicant. Such certificate shall not be valid after one year from the date thereof.

Sec. 3. Chapter two hundred and seventy-one of the acts of eighteen hundred and eighty-nine, and also all acts and parts of acts inconsistent herewith, are hereby repealed.

Sec. 4. This act shall take effect upon its passage.

At the session of the Board of Registration in Pharmacy held January 2, 3 and 4, forty-two applicants were examined and the following named five were granted certificates: Alfred F. Viallan-court, of Woonsocket, R. I.; Laurence E. Pedrick, of Cambridge; Maurice E. Cotter, of Lawrence; Charles H. Webster, of Newburyport, and D. Frank Buckley, of South Groveland.

According to the report submitted by the State Board, the whole number of complaints entered by the State Board in the courts of the commonwealth for violation of the acts relating to food and

drug inspection was 96. In 32 cases, or 33.3 per cent, of these, the parties were convicted. The amount of fines paid into the treasuries of counties, cities and towns under the provisions of the general and special laws relative to the inspection of food and drugs, was \$2,475—though it should be clearly understood that by far the greater part was an account of adulterated food, rather than drugs.

Vice-president Charles W. Dexter of the Wells Memorial Institute, delivered a practical talk on "Things not Generally Known" before a large number of people in the library the other evening. He told of the good and bad purposes to which such drugs as opium, morphine and carbolic acid could be put, giving much useful information for fathers and mothers who have not time to study these questions.

H. A. Weymouth, of Saco, Me., has put in a new soda fountain.

Everett is soon to have another drug store, situated on the main street.

Solomon A. Epstein, a well-known druggist in Chelsea, has lately become married.

W. A. Oxnard, formerly of Holbrook, has taken Fraser's drug store in Charlestown.

E. W. Landon has become the proprietor of Dixon & Arkley's drug store at Milton, Vt.

F. A. Woodbury, of Maverick square, East Boston, has sold out to the D. A. Eaton Drug Co.

Andrew G. Weeks, of the Weeks & Potter Co., has given \$100 to the General Theological Library.

O'Hearn, the Waltham druggist, has sold out, and is to go into the business of selling silver polish.

J. N. Perley, a Lebanon (N. H.) druggist, was a sufferer to the extent of \$4,000 by a fire on January 15.

Jackson S. Potter, formerly with R. J. Kennison & Co., Roslindale, is now head clerk at Arthur Chesley's.

George E. Sampson has opened a new drug store at Skowhegan, Me. It contains Tufts soda apparatus.

Samuel T. Jeffers, druggist at 1273 Dorchester avenue, has been arrested for violation of the liquor law.

S. R. Crabtree's new drug store at Island Falls, Me., is said to be the only one within a radius of thirty miles.

Postmaster H. B. Johnson, of West Roxbury, has bought of J. W. Tufts some hot-soda apparatus for his drug store.

Among the contributors to the fund in aid of the unemployed in Boston appears the Weeks & Potter Co., which has given \$100.

Kerrigan, late in the drug business in Brighton, where he was unsuccessful, has started another store at Newton Upper Falls.

John D. Footer, Bath, Me., will soon open a new drug store there. He has lately had Tufts put in some soda apparatus.

Peter Dempsey, an employe of Weeks & Potter, has been arrested for embezzlement of \$13 at different times within the past few weeks from his employers. Dempsey is 21 years of age.

J. W. Tufts is building a \$5,000 soda fountain for H. E. Brown & Co., of Detroit, and some expensive apparatus for the Moxie Co. Evidently trade will be brisker as spring draws nearer.

J. F. Lanable, junior partner in the drug firm of H. E. Tucker & Co., Waterville, Me., has become sole proprietor of the establishment.

J. M. Dwyer, formerly of Canaan, N. H., has bought out the interest of his partner, Mr. Whitcomb, in the drug store at White River Junction, Vt.

Mr. Weld, of West Warren, has engaged a new druggist, Joseph P. Fitzpatrick, from Waterbury, Conn., to take the place of Ethan T. Hall in his drug store.

The Raymond Medical Co., Raymond, N. H., has sold its pharmacy to Lewis G. Gilman, of Milford, N. H., who was for several years a clerk in the town of Raymond.

Frank A. Davidson, of the Theodore Metcalf Co., has sold his country estate in Stow to Thomas Lord, of this city. The estate comprises about thirty acres of land, with attractive buildings.

One of the city offices in the gift of the new mayor of Fall River went to James C. Brady, a popular druggist, who has already demonstrated that he is as capable a man in his new calling as in his old.

Dr. Eli Thayer, of Melrose, is dead. Dr. Thayer opened the first drug store in Weymouth many years ago, in a building purchased by him from Nathan Matthews, Sr., father of Mayor Matthews, of Boston.

Mr. Merrill, of Merrill & Chesley, Atwood's block, Roslindale, who is the Chicago agent of the E. L. Patch Co., has sold his interest in the Roslindale store to Arthur Chesley, who will continue the business.

Charles A. Baker, who was one of the sufferers by the disastrous fire in Fall River a few weeks ago, is now doing as much business as ever, and one would not realize that there had been a bad interruption.

The Vaughan Drug Co. has been organized at Portland, Me., for the purpose of manufacturing drugs and chemicals, with \$10,000 capital stock. The officers are: President, A. Montgomery; treasurer, A. A. Montgomery.

State Detective Seaver, who has been looking into the North Attleboro poisoning case, where several tramps took a deadly drink, says there is nothing whatever to warrant holding the drug clerk responsible for the affair.

Scores of friends of John F. Neill have called at his new drug store in Union street to compliment him in its fine appearance. Such a handsome place is a novelty in that part of the city. Mr. Neill was formerly with Cheney & Myrick.

E. M. Johnson, of West Warren, has secured the services of Mr. Bugbee, a registered pharmacist with nine years' experience in the employ of E. O. Gates, a leading druggist of Springfield. Although Mr. Morgan retains an interest with Mr. Johnson he is obliged to return to his drug store in Holyoke.

At his home at Sunnyside Terrace, Medford, Darius W. Pollard shot himself in the head with a revolver and instantly died. Mr. Pollard had been sick with a complication of diseases for the past five years, being 64 years of age. He was engaged in the drug business in Magoun Square, Somerville, until four years ago, when he gave up the business to his son on account of his poor health. A widow and four grown up children survive him.

A number of the members of the Massachusetts College of Pharmacy Alumni Association gathered in the hall of the college on St. Botolph street the other night to hear Dr. Augustus H. Gill, of the Institute of Technology give a short talk on "The Methods of the Investigation of Gases." The lecture was technical in its character and consisted of a minute description of the methods and apparatus used.

The appointment by the Mayor of Somerville of three new men on the license committee is regarded as significant after the druggist license agitation of the past year. None of the men have spoken very strongly in favor of the druggists, and their action and that of the board on the license petitions will be watched with interest. Five petitions were received by the aldermen, at their last meeting, for sixth class, or druggists' licenses, and were referred to the license committee.

A report is current in New Haven, Conn., that a new chemical laboratory for the Sheffield Scientific School, will soon be erected. J. Cleveland Cady, the New York architect, who built the Metropolitan opera house, was in town a short time ago consulting with Prof. Marsh and others about plans. Prof. Brush, director of the Yale scientific department, said relative to the report, "there is no immediate prospect of such a building. We feel the need of one, but funds for its construction are lacking. We have talked the matter over informally with Mr. Cady, of New York, but no plans have been drawn up."

R. J. Kenniston & Co., of West Roxbury, have secured the services of Miss Sweetser, of Stoneham, a registered pharmacist and a member of the senior class of the College of Pharmacy. Miss Sweetser was the only lady in the class of one hundred students, and after her successful examination, one of the leading members of the Board of Pharmacy, and one of whom the young men stand most in awe, in addition to her certificate presented to her a handsome bouquet, congratulating her upon her success. She has been employed in a dispensary in Boston, and also in one of the leading drug stores in Providence, and comes highly recommended.

The East Boston court room was crowded with people who wanted a glimpse at the two men who made the assault on Henry D. Huggan at his drug store in Maverick Square, when the case came up for trial. Samuel McSheehy, the leader in the assault, stands fully six feet, and is heavy and muscular. William I. Sullivan, his associate in the affair, is shorter, younger, and of lighter build. He was formerly a substitute letter carrier. McSheehy once kept a drug store at the corner of Putnam and Chelsea streets. Sullivan pleaded not guilty to a charge of drunkenness, and also to that of assault on Mr. Huggan. McSheehy was charged with drunkenness, assault on Mr. Huggan, assault on Henry F. Gould, at whom he is alleged to have thrown a jar of whipped cream which landed on Gould's neck, and malicious injury to personal property to the extent of \$450. He had counsel, who asked for a continuance. McSheehy was held in \$1,200 bonds on all the charges against him. Sullivan was held in \$100 on the charge of drunkenness only, and his case was also continued.

ANNUAL DINNER, BOSTON DRUGGISTS ASSOCIATION.



FRANK A. DAVIDSON,
Retiring President.

One might have thought, on the afternoon and evening of January 23, that the headquarters of the Boston drug trade had been suddenly established at Young's Hotel, for that well-known house appeared to be overrun with men prominent in the business. All this was due to the fact that the Boston Druggists' Association was holding its annual meeting there. This association was formed in 1875 for the furtherance of the interests of the wholesale and retail drug trade, the paint and oil trade, medicine houses and co-ordinate branches of business. Although largely a social organization, it frequently takes up at its monthly meetings matters of much concern to the general public, and the animated discussions bring out ideas of noticeable worth. The retiring president of the association, Mr. Frank A. Davidson, Ph. G., of the Theodore Metcalf Co., has long been one of the most enthusiastic and industrious members, and his services to the organization will be pleasantly and appreciatively remembered.

At the business meeting, officers for 1894 were chosen as follows: President, James F. Babcock; treasurer, Thomas L. Jenks; secretary, James O. Jordan; executive committee, Harvey S. Sears, Charles A. Kilham, William A. Chapin, George W. Cobb, Freeman H. Butler, Charles F. Cutler and Alfred H. Bartlett; committee on membership, R. L. Richardson, George H. Ingraham, Josiah Bryant, William W. Bartlett and Fred L. Carter.

When the business had been disposed of a reception was held, and soon after 6 o'clock dinner was served in the principal banquet hall. There were more than a hundred gentlemen present, the list of guests including Governor Frederick T. Greenhalge, Private Secretary Thomas; B. T. Fairchild, of Fairchild Brothers & Foster, New York; M. N. Kline, of Smith, Kline & French Company, Philadelphia; Professor E. L. Patch, president of the American Pharmaceutical Association; W. F. Sawyer, president of the Massachusetts College of Pharmacy; D. O. Haynes, of the Pharmaceutical Era; C. A. Mayo, editor of the American Druggist, New York, and J. Allen Rice, president of

the Massachusetts State Pharmaceutical Association. Among others present were such well-known men as Theodore Metcalf, Joseph Burnett, Professor G. F. Markoe, N. J. Rust, A. K. Tilden, Thomas Dolber, Dr. T. L. Jenks, C. A. West, J. A. Gilman, S. A. D. Sheppard, Hon. W. B. Rice, G. M. Garland, M. D., Henry Canning, H. M. Whitney, W. W. Bartlett, J. F. Neill, G. B. Markoe, J. A. Rice, F. H. Butler, Thomas Hollis, Francis Hollis, L. B. Hollis, F. L. Carter, I. B. Patten, F. B. Patten, S. A. Fowle, F. H. Fowle, M. L. H. Lovvitt, B. Jenney Jr., C. W. Cheney, S. A. Neill, C. H. Carter, Josiah Bryant, H. S. Sears, W. A. Chapin, G. H. Ingraham, R. L. Richardson.

Seldom are arrangements for an occasion of this kind more tastefully made or more skillfully carried out. Take the bill of fare, for example; it was printed in beautiful old-fashioned type, on the finest paper, and on the face of the bill there appeared the quotations, "Intercourse is the soul of progress" and "Everywhere in life the true question is not what we gain, but what we do." This was the clever idea of Mr. Thomas Dolber, of the Dolber-Goodale Co.

After the feast, President Davidson addressed the company briefly. "Language was given to us that we might say pleasant things to each other," was the first pleasant thought printed beneath the list of toasts, and the "Commonwealth of Massachusetts" was the first regular toast. Mr. Davidson said:

"No class in the community has a deeper feeling of loyalty to our government than the guild of merchants who compose the Boston Druggists' Association. It is sometimes considered facetious, on occasions of this kind, to allude to the druggist's back shop where the convivial guest may help himself, provided it is done strictly for medicinal purposes. I know I but give the sentiment of every druggist present when I say that such references meet with no approval from our association. There is no druggist worthy of our membership who does not respect any and all of the laws which the Legislature may give us, and who does not earnestly desire to assist in enforcing them. Our laws have not always been such as we could approve; but, while they have remained upon the statute book as laws, the members of the Boston Druggists' Association have accepted them and endeavored to co-operate with all branches of the government in their enforcement. But the commonwealth has always been more fortunate in her executive than in her legislative department. No state can point to a more honorable line of distinguished names than those men who have from time to time filled the chair of her chief magistrate, whatever the prevailing political opinion of the majority of her citizens. The Governors of Massachusetts from the earliest history of the state have been distinguished for their ability, integrity and patriotic devotion to what they believed to be for the best interests of the commonwealth. Our present Governor, always faithful to the many and diversified public interests with the administration of which he has been charged, is, we believe, a most worthy successor to the office which has been filled by such distinguished citizens—Andrews and Rice, Gaston and Russell.

"We are honored this evening by her chief executive, His Excellency Hon.

"Intercourse is the soul of progress."



Annual Dinner

.. of the ..

Boston Druggists' Association

January 23, 1894

: Young's Hotel :

Boston



Music by : :

The Association's Mandolin Club
A Chorus of Men and Boys



"Everywhere in life the true question is not what we gain, but what we do."

MENU.

"A dinner lubricates business."
Cotuit Oysters.
"Music is well said to be the speech of angels."
Consomme a la Dauphine. Green Turtle.
"Turtle makes all men equal."
"Laughter is the chorus of conversation."
Saddle of Venison, Jelly Sauce.
Roast Philadelphia Chicken.
Fillet of Beef aux Champignons.
"Simple diet is best."
Cromesoult of Lobster, Cardinal.
"Cutlets of Chickens with Peas."
Vol au Vent Salpicon.
Banana Fritters, Glace Cognac.
Timbales of Spaghetti, Hallenne.
"Appetite comes with eating."
"Joy is the best of wine."
Lobster Salad. Chicken Salad.
"Be merry if you are wise."
Black Duck. Larded Grouse.
"Music makes a glad remembrance of our youth, calls back past joys, and warms us into transport."
Charlotte Russe. Frozen Pudding.
Lemon Meringues. Madeira Wine Jelly.
"Enjoy your present pleasures so as not to injure those that are to follow."
Oranges. Bananas. Apples. Nuts.
Raisins. Figs. Ice Cream. Sherbet.
Cheese. Olives. Coffee.
"The charm of music dwells not in the tones, but in the echo of our own hearts."

TOASTS.

"Language was given to us that we might say pleasant things to each other."
"The Commonwealth of Massachusetts."
His Excellency the Governor.
"Words are the voice of the heart."

"Music is well said to be the speech of angels."
The City of Boston,
His Honor the Mayor.
"The most important part of every business is to know what ought to be done."
The Press.
Hon. W. E. Barrett, Boston Advertiser and Record.
"Journalism has already come to be the first power in the land."
"Music washes away from the soul the dust of everyday life."
The National Wholesale Druggists' Association.
Mr. M. N. Kline of Philadelphia.
"Be always resolute with the present hour."
The American Pharmaceutical Association.
President E. L. Patch.
"Every noble activity makes room for itself."
The New York College of Pharmacy.
Mr. Benjamin T. Fairchild of New York.
"We enjoy ourselves only in our work: our doing, and our best doing, is our best enjoyment."
"The meaning of song goes deep."
The Massachusetts College of Pharmacy.
President Wm. P. Sawyer.
"I hold every man a debtor to his profession."
The Pharmaceutical Press,
Mr. Benj. Lillard, The Druggists' Circular, New York.
Mr. D. O. Haynes, The Pharmaceutical Era, Detroit.
"Through the rare felicity of the times, you are permitted to think what you please and to publish what you please."
The Incoming President,
"The only competition worth a man is with himself."

Fred'k T. Greenhalge; a long life and prosperity to him, and may it be many years before he is forced to enter the ranks of the unemployed."

Gov. Greenhalge, being then called upon, made a speech which was applauded heartily. He was welcomed with three hearty cheers, the company also rising and singing to the tune of "Daisy Bell" a merry song. His excellency gracefully acknowledged this pretty compliment and continued as follows: "I am glad to find myself among friends. I meet here a great many whom I have known before in ranks of earnest workers in various responsibilities of life. I have been surprised at the widespread scope of your organization. I meet here men of earnest purpose, of scientific training, of eager ambition. We meet those representatives, and nothing is more encouraging to the representative of Massachusetts, whether he be the executive or the citizen engaged in prosecuting her work in every department, than the high respect, the esteem and devotion which prevails throughout the country toward the great commonwealth which we represent. It is something which we desire to perpetuate, to continue, to extend, to advance and to develop.

"You represent a most important department in the work of this commonwealth, and of the work of the country of which the commonwealth is so important a portion. It is of the utmost importance that sincerity, honesty, truth, should prevail in your councils and in the work of every representative of your body. We are told frequently that there is some objection to a paternal supervision of the individual work. Do not be too much afraid of paternal supervision. The state has an important part to fill in helping out the individual. The collective work of the community is worth vastly more and is more efficacious than the work of any individual can be. Registration of pharmacists was valuable—it has proved itself to be so. Registration of practitioners of medicine is equally important. We need work of that sort on the part of the commonwealth. It does not destroy individuality. It protects the people, and anything that protects the people does not degrade or interfere with the rights of the individual. Therefore, I say, my friends, that while we will protect the rights of the individual to the last degree, we at the same time will insist that the whole body of the community shall advance just as the sun moves. One practical point I leave you as a message for this great organization—that a pharmacist is a pharmacist. He is not the keeper of a grog shop; he is not an impostor attempting to delude the people under an honorable name, cheating and deceiving the lawmakers and the spirit of the law. You want to purify the ranks. It is your duty to see that the honorable name of the profession is not profaned and dragged in the dust. Therefore, the present law, which gives you power to register the true, the genuine, the honest pharmacist, must be carried out with adequate means. You must see to it that the work is carried out efficiently, successfully and thoroughly. It is a duty you owe the public and yourselves. I say, look to it that this work is well done, that you keep the honorable name of your guild, your profession, of your calling, so that no man can say of you, or of any member of your organization, this is simply a sort of organization



JAMES F. BABCOCK,
President-Elect.

James F. Babcock, the new president, was born in Boston in 1844 and was educated in the public schools and at Harvard. In the Lawrence Scientific School, under the direction of the late Prof. E. N. Horsford, he made a special study of chemistry, and on leaving the school he entered upon the practice of chemistry, speedily acquiring a high reputation as an expert. In 1869 his ability was so marked that he was called to the chair of chemistry in the Massachusetts College of Pharmacy. There he remained till 1874, when he resigned to accept a similar position in Boston University. For six years he did excellent service here. He held for many terms the office of State

Assayer and Inspector of Liquors, and owing to his activity and influence important legislation relating to the liquor trade was secured. In 1885 Prof. Babcock was appointed Inspector of Milk and Vinegar in the City of Boston, and so well were his duties performed that one Mayor after another continued him in the office. Here, as in his state position, he accomplished important reforms, the benefit of which is widely recognized. At odd times Prof. Babcock has appeared upon the lecture platform, and he has also been called into many legal cases where his knowledge of chemistry made his testimony of the greatest value.

in which a man may get a license and authority from the state, and may then prostitute it to the basest of uses. I say, keep up the spirit of this organization, for the higher, purer spirit of the age is work—more work, better work, more determination to have things known by their right names. Let us know who is genuine, who is untrue, who is honest and who is faithful. Continue this work, purify the lists of your registration, just as we want the voting lists purified, and you will increase the respect of your profession."

Mr. M. N. Kline, of Philadelphia, "a friend of the retail druggist and a warrior for the wholesalers," described the formation of the National Wholesale Druggists' Association, and said that it had begun and carried through all the reforms which had become facts in the trade. The organization had largely succeeded in minimizing evils in the trade, and had to do with reforms in the retail business. That more success had not resulted in these efforts was probably because the retail trade was not so united as it might be. He urged the need of union in the retail trade as a prerequisite of success.

President Edgar L. Patch of the American Pharmaceutical Association said that this is an era of organization; it is a strange fact that the tendency of modern times in America is toward centralization of power, with a trend toward paternalism. The druggists have fallen in to line and organized again in the State Association, the Interstate League and the National Association. The State Association has come to comprise the best men, and yet the idea to be cultivated is the American and the national idea. He bespoke the hearty aid and appreciation of the members in favor of the American Association.

Representing the New York College of Pharmacy, Mr. Benj. T. Fairchild spoke highly of the standing of the college. He felt that Boston and New York were engaged in a friendly rivalry in the matter of training in pharmacy, working for the good of the trade. He confessed that the promoters of the New York school had resolved that they must beat Boston in order to succeed, and that they had sent some of their young men over to examine the Boston school before deciding on what they would do. He thought Boston and New York should

have no invidious rivalries in this branch of instruction, each had its own work to do, and if one got a new wrinkle the other would adopt it and go it one better. As to the practice of pharmacy here, he thought it was equal in many respects to the state of pharmacy abroad. He thought it little less than surprising that pharmacists had not organized more. It was not wise to make the druggist work so hard that he could not have any leisure. He believed that the degree of Doctor in Pharmacy ought to be given as well as the doctor's degree in the intellectual pursuits.

President W. F. Sawyer, of the Massachusetts College of Pharmacy, spoke for that institution. In the past it had simply had no existence, but during the past few years it had strengthened wonderfully, and he predicted that a laboratory of research in connection therewith would be a fact in the next few years. President Sawyer said that the college had helped the trade considerably, and the laboratory would enable its members to make their own chemicals. He predicted that within the next generation the college would be fully recognized as a part of the educational mechanism of the state.

The pharmaceutical press was toasted, and Mr. Caswell A. Mayo, of the American Druggist, responded. He admired the broad-gauge manner in which the Boston Druggists' Association was run—not burying itself in the business, but reaching its influence out into the state and the nation. There were two necessary points about the pharmaceutical press, accuracy and promptness, and he thought the press had lived up to these necessities.

Mr. D. O. Haynes, of the Pharmaceutical Era, after stating that there are thirty-one publications claiming to further the interests of the drug trade, went on to give some of the causes for the establishment of so many—the low rates of postage, the desire of manufacturers to have a paper of their own to advertise their special wares and nothing else, etc. The effect of all this mushroom class of journals has been to weaken all, as the trade cannot possibly support so many. It is in the hands of the druggists to apply the remedy, said Mr. Haynes. Let them be more discriminating; let them give to publishers of a few of the best journals the benefit of their ideas as to how the papers should be conducted, and encourage them to be progressive and independent. The house organs should be ostracized. Mr. Haynes spoke of some of the desirable features in an ideal publication—promptness in giving the news, accuracy in its trade departments, and utter impartiality in its editorial expressions, and predicted that if the druggists gave sufficient encouragement it would be found that there were publishers ready to meet the want in a perfectly satisfactory manner. In conclusion he spoke pointedly of "our old friend, the cutter," and the great injury he does to the legitimate drug trade.

In the course of the evening there were songs at frequent intervals by a glee club, Mr. Frank T. Neely, of Chicago, whistled in a marvelous and charming manner several selections, and a string quartette contributed music on mandolins and guitars. All in all, this dinner was one of the pleasantest the Druggists' Association has ever had since its formation.

THE DOLBER-GOODALE CO.'S ANNUAL DINNER.

The annual dinner of the Dolber-Goodale Company, the proprietors of Mellin's Food, to their heads of departments and traveling men, was given on the 6th of December, 1893, at the Parker House, Boston.

In response to the special invitation from Mr. Dolber, the president of the company, all of the traveling men had turned from their different fields of labor, and had come together in Boston, the headquarters of the business, each to make systematic and detailed report of his past year's work and to discuss with the home management the methods, plans and efforts for his coming year's work.

It was a most natural and happy home-coming, and seemed almost like a family gathering, as the freedom of discussion, the quick response to Mr. Dolber's request for suggestions, and the enthusiasm shown by all present, told of the cordial relations and perfect confidence existing between the travelers and the manager of the company.

At the dinner, Mr. Dolber, the president, had the head of the table; the vice-president, Mr. Cheney, the foot; Mr. Delano, the right, and Mr. Hazeltine the left center. Messrs. Cox, Snyder, Jones, C. M. Phelps, Hobbins, Larrabee, Stone and Goodwin completed the circle. The appearance of the table was strikingly novel, with its pyramid of foliage and choicest cut flowers, of which Mr. Dolber is so fond, and the menu and service were all that for two generations have made "Barker's" famous.

After the merriment which always accompanies a good dinner, speeches were in order, and as the Mellin's Food men are all good talkers and the dinner had been a success, there was no backwardness in coming forward to carry out this part of the programme.

Mr. Stone set the ball rolling with a toast to the president and the heads of departments, which brought out hearty and appreciative responses, first from Mr. Dolber, and following him the several members of his staff of assistants who are at the head of the different departments of the work in the home office; and then every one of the traveling men, as he felt moved to speak, gave to the others his ideas of the work from his own personal point of view, each telling his belief and conviction as to the best ways to accomplish the results desired under the widely varying conditions prevailing in their different fields of effort.

The last hour was devoted to a wholly unexpected and successful demonstration of the latent musical ability of the party. Messrs. Delano, Stone and Larrabee "spelling" each other at the piano, and music and song held sway until, with rousing and heartfelt cheers for Mr. Dolber and for Mellin's Food, these earnest and loyal co-workers separated, strengthened in purpose, each with greater confidence and increased zeal, to take up his own work again with the determination to accomplish all, and more if possible, than the management had expected of him, as a natural return for the confidence and compliment shown him in this meeting with his fellow workers and employer on common ground.

Perhaps one secret of the steady growth and increasing prosperity of the Mellin's

Food business is to be discovered in this incident. Mr. Dolber's breadth of view, honesty of purpose and perfect sincerity, which make him willing to listen to any and all suggestions that even the youngest and least experienced of his employees might offer, have no doubt kept the entire force of workers in intelligent harmony with those whose responsibility it is to direct them, and in this way better and larger and more permanent results have been secured.

There is no position in commercial life, as business is done to-day, so hard to sustain successfully as that of "traveler," for the reason that it is possible for him to find himself so quickly "out of touch" with the home people. He wants to carry out their ideas, and intends to do so, but too often confusion and misunderstanding arise from the care of the work of the traveling men having been given to an irresponsible correspondent who is personally impatient of anything but routine work and is not interested in the ideas and suggestions of the men who, in their different fields, are in reality the very pulse of the business.

No clearer and more unmistakable instance of Mr. Dolber's sagacity and sound business judgment can be asked for than the fact that to the work of, and correspondence with, the traveling men, he delegates the best thought and ripest experience among his associates in the management of the business.

The Clarksville Drug Co., Clarksville, Tenn., has made an assignment for the benefit of its creditors.

F. J. John, a Homestead, Pa., druggist, has retired from the retail business and accepted a position with W. J. Gilmore & Co., of Pittsburg.

H. S. Northrop, the deceased member of the drug firm of Northrop & Lyman, Toronto, Ont., left a will disposing of an estate of \$685,000. The property is divided among relatives.

A. E. Klesling, late of the firm of Hertz & Klesling, druggists, Houston, Tex., has purchased the Lankford drug store in the same city. He will cater to the prescription trade.

J. L. W. Huntington, a well-known citizen and druggist of Norwalk, Conn., died December 17 of heart disease. He was an energetic collector of antiques and Indian relics.

Dr. P. T. Rogers, one of the oldest and most widely-known druggists in Southern Kentucky, died at his home in Hopkinsville recently of pneumonia. He was about 60 years of age.

R. H. Kemp, a druggist of Trappe and one of the leading business men of Talbot Co., Maryland, died December 29, 1893. He was 55 years of age, and had been in failing health for some time.

H. H. Johnson, druggist in charge of Martland & Anderson's pharmacy, Slouss City, Ia., committed suicide December 29. He was a young man who had always borne a good reputation, and no motive can be ascribed for the deed.

James R. Fisher, for many years engaged in the drug business in Virginia, and later assistant librarian to the House of Representatives, Washington, D. C., died in that city December 29, of typhoid fever. During the war he was connected with the Medical Purveyors' Department of the confederate government, and one of the most prominent Democratic politicians in the State of Virginia.



THE EXECUTIVE STAFF OF THE DOLIBER-GOODALE CO., PROPRIETORS OF MELLIN'S FOOD.

Joseph B. Larrabee.

J. J. Jones, M.D.

Henry A. Snyder.

Charles I. Folsom.

Charles M. Phelps.

John W. Cox.

Clarence G. Stone.

Charles H. Robbins. Thomas I. Delano, Jr. Richard W. Folsom.

Thomas Doliber, Pres't.

Charles W. Cheney. Charles B. R. Hazeltine.

Howard Goodwin.

NEW YORK.

New York, January 25.—The past two weeks have been eventful ones, with an unusual number of deaths and casualties.

The pharmaceutical profession has suffered a great loss in the sudden death of Dr. Oscar G. Harrison, instructor in botany, pharmacognosy and materia medica at the College of Pharmacy. Dr. Harrison was a graduate of both the College of Pharmacy and the College of Physicians and Surgeons. He was assistant at the College of Pharmacy to Prof. Rusby, who held him in the highest esteem, personally and professionally. He was ill but a few days and nothing serious was thought to be the matter until within a day or two of his death, when appendicitis developed and had gone so far that an operation failed to relieve him. The day of his death he had seemed to be better and had rallied considerably; strong hope was then entertained of his recovery, but it was but temporary, and on Sunday evening, January 14th, he passed quietly away. His wife was at his bedside throughout his illness, and is completely prostrated by his death. They had been married but a few months. The doctor had made a special study of vegetable histology, and had contributed a number of very valuable papers on this subject. He was also assistant to Professor Wilcox at the Post Graduate Medical School. The senior and junior classes at the college passed resolutions of regret and attended the funeral. The college, at its last meeting, also passed resolutions of regret and a large number of its members attended the funeral. Dr. Harrison had just been unanimously chosen editor of the Alumni Journal of the college. He was of a genial disposition and had the faculty of making many friends, who express their deepest regret at his untimely death.

Sidney A. Schieffelin, formerly in the wholesale drug business in this city, died at his home in Geneva, N. Y., on Sunday, January 21st, in the 70th year of his age. He had not been in active business since 1865, having retired at that time from the firm of Schieffelin Bros. & Co., which was succeeded by the present firm of W. H. Schieffelin & Co., he being an uncle to the present W. H. Schieffelin. He was well known throughout the country for his many charitable acts, and leaves a large circle of relatives and friends to mourn his loss.

Dr. E. Tiesler, medical examiner for the State Board of Medical Registration, of New Jersey, died recently. He was well known in pharmaceutical circles, having conducted a pharmacy at Orange, N. J. He did much to advance the cause of pharmacy in his state. He was a member of the different pharmaceutical and medical associations.

In the terrible collision on the Delaware & Lackawanna Railroad, January 14, was Carl H. Schultz, son of the well-known manufacturer of mineral waters in this city. He was very badly injured and, it is said, cannot recover. He was accompanied by his brother Walter, aged 14, who was also badly injured, but not seriously.

Louie Bodine, of Summit, New Jersey, a former student in pharmacy and now attending the College of Physicians and Surgeons, was also a victim of the D., L. & W. R. R. accident; he was cut about the head and face, but not seriously.

The annual ball of the German Apothecaries' Society was held at Katona Hall, 16th street and 3d avenue. There was a large attendance of those connected with the pharmaceutical profession. Carl Arne-man acted as master of ceremonies and chairman of the floor committee. After the order of dance reached No. 7, intermission was had for supper, which occupied about 2½ hours. The usual number of toasts were given and responded to by the members and their friends; after this dancing was again resumed. The affair lasted until about 6 a. m. Among those present were: Carl Arne-man, H. L. Behrens, Victor Kostka, Edward Pfaff, John Pfeiffer, Mr. Alexander, of Alexander & Vandermissen, A. G. Hoffman, Mr. Vogt, Mr. Schleussner, Fred Hohen-thal, W. T. Lins, Messrs. Tsheppe, Schur, Fleischer, Schlenrmann, Hugo Smelz, Carl Wurn, F. Kronsberg, Hatteman, Otto Von Besser, O. A. Leichster, Geo. T. Reafflin, F. W. Fink, George Strauss, J. Kalman.

T. Felix Agne is now at Ed. Lapid's Tompkins Park pharmacy.

Edward Hirzel is now representing H. J. Winsler in New York City.

B. M. Douglas, western salesman for Delletrez's perfumes, was in town for two weeks.

A. S. Brooks, of Williams, Davis, Brooks & Co., Detroit, has been visiting this city.

John A. Wellington, southern representative for Sharp & Dohme, was north recently on his wedding trip.

A. P. Lohness, Phar. D., has been elected director of the pharmaceutical laboratory in the Brooklyn College of Pharmacy.

W. A. McIntire, Ph. G., has been appointed laboratory assistant to the chairs of organic and inorganic chemistry in the Brooklyn College of Pharmacy.

F. W. Koch, of Lehn & Fink, and editor of Notes on New Remedies, was a victim of the prevailing malady, la grippe, and was confined to the house for a few days.

W. J. Wilson has been appointed laboratory assistant to the chair of pharmacy. H. W. Barts has been appointed assistant to the chair of botany and materia medica.

John Pfeiffer, 241 Nostrand avenue, Brooklyn, owing to the large increase in his business, has taken his son into partnership, and the firm's name now reads Pfeiffer & Son.

The Union Chemical Works, whose main office is at No. 15 Cedar street, has gone into the hands of a receiver. The liabilities are placed at \$290,000, and the assets at \$136,192.

Paul Monlun, manager of the American branch of Delletrez perfumes, was a victim of la grippe, but has entirely recovered and is attending to business as usual.

Hudnut's Pharmacy, 218 Broadway, N. Y. Owing to a mistake upon the part of the cut-rate committee. The black list gave the address of Hegeman & Co. They have no interest in this firm. Hudnut's have always been known for high prices instead of cut rates, and Manager George Bancroft does not enjoy being classified as a cutter.

On Thursday evening, January 9, an impromptu entertainment and reception was held at the Brooklyn College of Pharmacy. Stereopticon Views of the World's Fair and Mexico were shown. Dr. Hunt also delivered a very interest-

ing discourse on "Pulque, the Mexican Drink." Music was rendered by the college quartet, refreshments were had, and Dr. J. F. Golding entertained the company by one of his famous after-dinner speeches.

The annual exhibition of the department of microscopy of the Brooklyn Institute was held on January 15. Prof. H. W. Schimpf, of the Brooklyn College of Pharmacy, exhibited crystals of sugar polarized. Dr. Jos. Hunt, professor of botany at the Brooklyn College, exhibited a section of the ovary of the poppy and a section of rattan; Dr. Smith Ely Jalliffe, instructor in botany and materia medica and director of the microscopical laboratory of the Brooklyn College, showed the impurities in the Brooklyn water supply.

The regular meeting of the New York Branch, Interstate League, was held on January 16. The meeting was not as large as expected, but what it lacked in numbers it made up in enthusiasm. The next meeting will be held January 30, when steps will be taken to get all the members out and to make arrangements for the regular League meeting, on February 6. President Chas. A. Osmun is working hard for the success of the League, and the drug trade should respond more quickly and attend the meetings regularly.

Two cases of alleged violation of the pharmacy laws were tried before Judge Burke at the Harlem Police Court, January 23. The accused were Chas. F. Dahan and Theodore Arndt. Both were held in \$100 bail for trial in special sessions. The examinations in both cases were held privately. Theo. Arndt, whose store is located at 112th street and Columbus avenue, was arrested on a warrant sworn out by the inspector of the Board of Pharmacy, charging him with employing an unlicensed clerk to compound prescriptions, in violation of the law. The clerk, when asked to show his license, refused to do so, but told the inspector the date of his license and said his name was Kuno Uden. It turned out his name is Boyoslevsky. Kuno Uden is now employed at 10 Greenwich street, and was produced in court and testified that his certificate had been taken away by Boyoslevsky, who formerly worked there. Arndt admitted he did not inspect the clerk's license, merely asking him if he was licensed. He also claimed that the prescription was put up under the supervision of a physician, which the Board claim did not entitle him to relief, as the physician was not registered. The clerk, who was traveling under an assumed name, is still at large, but it is said the authorities have him under surveillance.

The second case, Chas. Dahan, is said to be somewhat complicated by political influence. The accused man's store is at 127th street and Lenox avenue. Efforts have been made, the inspectors say, to have the case settled out of court, and he is said to have strong influence with the authorities. He claimed he had not asked his clerk to show his license, but supposed he was registered. He was first notified in June that he was violating the law, but he failed to discharge the clerk until he found that the matter was going to be pushed. The clerk has disappeared, and collusion on the part of the authorities is claimed by the Board of Pharmacy, as one of Dahan's bondsmen was the father of the clerk.

PHILADELPHIA.

Philadelphia, January 25.—The Society for the Prevention of Cruelty to Children, aided by the police, is about to institute a crusade against pharmacists who, in their judgment, improperly sell laudanum without due regard to consequences. The agitation this time has been stirred up by the discovery that a 17-year-old girl has succeeded, as she claims, during the past two years, in buying laudanum over 700 times in quantities from half an ounce to two ounces. The girl was found one afternoon in the ladies' waiting-room of a commercial establishment apparently in a dying condition. At the Philadelphia hospital she confessed that she had taken laudanum and chloroform with suicidal intent. She was a resident of this city and gave the address of her parents. Her father stated to the police that he had been unable to break his daughter's indulgence in opium and had no idea where she contracted the habit. She said that she never had trouble to get as much laudanum as she wished at any drug store, whatever section of the city she happened to be in. This tale is what has started the society's agents on the war-path, although no arrests have been made as yet. If the laudanum sold is properly registered the sale is of legal character.

Mrs. Elizabeth Duhling, of this city, who a few days ago brought suit against Druggist Hallowell, claiming that a preparation of face powder purchased from him had poisoned her blood, ruining her complexion, has lost her case. Mr. Hallowell had expert testimony in Common Pleas Court which no jury could withstand. He claimed that there was no deleterious substance in the mixture. To strengthen his case he had a bevy of pretty girls in court who stoutly maintained that they had used the same powder for years and their complexions had been enhanced in beauty in consequence, with no injurious effects to their health. The jury then returned a verdict for the defendant.

Henry Dalley, Jr., secretary and treasurer of the committee appointed by the manufacturing perfumers to devise means to circumvent any hostile legislation by congress, has sent a lengthy circular letter to the different manufacturers. The committee have received from some of the trade intimations, and in some cases statements of the fact that individual firms have secured the services of special representatives in Washington, who are looking after their individual interests. It is apparent that the interests of the business at large will be much better served if the whole trade acts as a unit when it comes to influential work, either in the House or Senate. This will avoid complications and ambiguity of statements, which though not different in fact, are presented in different ways by different individuals. The circular states that all are of one mind, as to the maintenance of the present rate of duty on imported alcoholic perfumery, and seek in common interest to prevent interference with this present rate or substitution of any other duty therefor, unless indeed it may be the old rate. The committee has given the matter most careful thought and have not been slow in taking action. The committee is now represented in Washington by a gentleman of large experience in public affairs, with a wide

acquaintance amongst influential men. The plans of the committee have been carefully laid and are now being carefully and effectively carried out. They comprehend the accomplishment of more than has been referred to above, and there are good reasons to hope for success.

The Kearsbey & Mattison Chemical Company at Ambler is now charged by the postmaster of that place with boycotting him. The postmaster claims that the firm purchased its stamps elsewhere because he did not favor the removal of the postoffice building to the opera house owned by the chemical company across the railroad. The salary of the postmaster is regulated by the number of stamps he sells and in consequence it has greatly fallen off. During the months of April, May and June, immediately preceding the boycott, over 45,000 stamps per month were sold on the average at the postoffice at Ambler. Less than 1,200 was the average for the three months following. The postoffice officials at Washington are now looking the matter up. Dr. Mattison, the president of the chemical company, said the contemplated removal of the postoffice to the opera house had nothing to do with the boycott, although he stated that in his judgment the office would be more conveniently situated there. In the doctor's opinion the proceedings were justifiable by the inability to obtain improvements in the Ambler postoffice.

The feature of the January pharmaceutical meeting held in the assembly room of the Philadelphia College of Pharmacy, on the 16th of the month, was a talk on "Vaccine Virus," by Dr. H. M. Alexander, of Marletta, Pa., who has studied the mode of preparation of this therapeutic agent in all its details. Photographs showing the manner in which cattle are cared for and afterwards treated in the preparation of the virus were exhibited. Dr. Alexander referred to the opposition with which the virus met when first brought out as a preventive of small-pox and then to its introduction into the United States in 1870. Much of the propagation, he said, was done under dangerous circumstances. Cattle were housed in filthy stables entirely unfit for the animal from which such an important result was desired. This practice of not keeping the live stock in proper quarters, he said, is still in vogue among those who make virus for the sole purpose of selling it without protecting individuals using it from contamination or the introduction into their systems of dangerous diseases productive of ulcers. He urged that propagation be carried on in the country, where healthy animals, good food and clean stables can be had without trouble. He advocated the use of heifers from one to two years of age, instead of stock-yard cows, in making operations.

Dr. Alexander then described the methods of fastening the animal, which could be done in less than five minutes from the time it was brought from the stables. He laid stress on the point that the heifer should not be made angry nor anything done to increase its temperature, for the product would be injured. The process of preparing the vaccine points was illustrated. Dr. Alexander favored the plan of obtaining virus from families of sound animals and their progeny. European propagators who visited the Columbian Exposition, he said, had admitted that,

even after careful inspection, tuberculosis had been found in cattle operated on and then slaughtered. Rate cutting was pointed to as an evil which is responsible for some of the worthless virus now on the market. The reprehensible practice of adding a trace of croton oil to the virus, to insure soreness, has been detected. Ulceration is seen by the physician, who mistakes it for a genuine scab, and is satisfied, meanwhile the patient is worse off than if he had not been vaccinated at all. Good virus, it was said, is not injured by age if kept in a cool place. A temperature of 103 degrees Fahrenheit is the highest point of safety. In commenting on the demand for colorless points, Dr. Alexander said that there is no trouble to meet it in abundance, only there will be a smaller quantity of virus furnished as a result. The difference in color was due to the difference in quantity.

The internal treatment recommended by some doctors, in which the virus is swallowed in small doses was ridiculed. At the conclusion of Dr. Alexander's remarks he was asked many questions by the students and pharmacists present, who were well pleased with the instruction afforded them.

Mr. Harold C. Barker read a paper on an analysis of pycnanthemum lanceolatum, with notes on its essential oil, giving the result of carefully conducted laboratory experiments. Prof. Trimble had a number of interesting specimens of drugs and chemicals to exhibit, additions to the college's museum, among which was the Japanese calomel, already described in the Era.

Mr. Galbraith has bought out the drug store of James G. Wells, at Ninth and Spring Garden streets.

E. E. Bostwich has sold through F. E. Engelman his store, 104 North Second street, to E. J. Finnerty, late of the firm of Finnerty, McClure & Co.

The faculty of the Medico-Chirurgical College have created three new chairs, as follows: A chair of otology, one of orthopedic surgery and one of genito-urinary diseases.

M. P. Lind, of the firm of Schandelin & Lind, manufacturers of Garwood's standard perfumes, is on the road again. This trip is to be a short one, as only the trade of Baltimore and Washington are to receive his attention.

Mr. Theodore Maris, who is a jolly good fellow, as well as an excellent business man, says that during the last six weeks there has been an unusually large demand for hot water bottles, due, he thinks, to the grip. His patent tooth-powder bottle, No. 602, is having a large sale. A paper in Germany saw a description of this bottle and gave the manufacturers a good puff.

Notwithstanding this is considered the age of progress, it is not apparent to an observer if he watches the various orders for druggists' supplies. John M. Maris & Co., which is one of the largest houses of this description in this city, frequently receive orders for goods the counterpart of which were in use over 50 years ago. While the orders are generally from the west and southwest, there are a number of home druggists who cling to the articles which were in use during their grandparents' time.

For several years there has been an effort made to secure a uniform price for Paris Green. A few days ago a meeting of the Paris Green manufacturers and members of the N. W. D. A. was held in New York to devise some plan by which the long sought for scheme could be carried out. M. N. Kline, of this city, was in attendance, and he thinks that good results will follow the meeting.

Robert McKinley, who for a number of years has been in the receiving department of Smith, Kline & French Co., has departed this life for a better one. Mr. McKinley was employed for many years by Wm. Gulager, who, in speaking of him, said: "He was the most conscientious man I ever saw. Honest as the day is long, and ever watchful of his employer's interest."

On January executions were issued against the Philadelphia Optical and Watch Company, of 916 Chestnut street, of bonds and warrants aggregating \$239,262 55. Foreign attachment proceedings were also begun against the company by a number of firms, in which bail was fixed in each case. A similar action was also begun by Charles C. Harrison, in which three lots of ground at Forty-second and Mantua avenue were attached.

In speaking of the trade situation Mr. Kline said: "Our business has been very good for the past six weeks, but it is now beginning to slacken. I think the main cause for the activity was due to the large number of sick people, nearly all of whom traced their illness to the grip." Mr. Kline will be a guest of the Boston Druggist Association at its annual banquet January 23, and will respond to the toast, "The International Drug Association."

The Pennsylvania State Pharmaceutical Examining Board held a meeting in the Central High School of this city on Saturday, January 20. About half of the senior class of the college was present for examination for registration, and some juniors were also in attendance. The test of their knowledge was a "feeler," in a way, as to how they had benefited by the winter's college course, and a mental inventory was taken by each individual as to his chances for passing the final spring college examinations.

James Good, manufacturer of carboric and tar soaps, has a tar soap now which he claims to beat anything on the market. He is so confident that it cannot be beaten that he is willing to make a novel wager. He will fill the gray whiskers on his face, which the wind has trickled through for a number of years, with pine tar, provided another maker of tar soap will do the same, and he bets that his soap will remove the tar from his whiskers better than the soap of the contestant will remove the tar from his.

At a meeting of the faculty of the Jefferson Medical College on January 9, it was unanimously decided to extend the course from three to four years. Similar action has been taken by the faculty of the medical schools of the University of Pennsylvania, where the four years' course is now in effect. The State Board of Medical Examiners, from which all physicians must secure a diploma before they can practice, has announced that after 1898 they will not recognize or receive for examination any graduate from a school having a three years' course.

DETROIT.

Mr. Harry T. Carver, of Farrand, Williams & Clark, of this city, is the possessor of a relic of the by-gone days of the drug trade in the shape of an old price current issued by Henshaw & Co., No. 33 India street, Boston, dated September 20, 1829. In transmitting it the firm say: "We herewith hand you a list of articles with our six months' prices annexed, and should be happy to execute your orders for such articles as you may find it to your interest to purchase of us. It usually occurs that in executing an order we are enabled to place many articles on the invoice at a less price than quoted. Should you wish to purchase on a longer time than six months, we can extend the time by adding interest." The price list shows the great difference in prices which time has caused in the drug trade. Alcohol is quoted at 56 cents per gallon; citric acid, \$5.50 per pound; carbonate of magnesium, small squares, \$1.50 per pound; elaterium and emetine are quoted at \$8 and \$9 respectively; gum opium at \$1 per pound; morphine sulphate, \$12 per ounce; olive oil, 92 cents per gallon; castor oil, \$1.60; peppermint, \$1.12; piperine, \$7 per pound; quinine sulph., \$2.75 to \$3 per ounce; strychnine, \$23 per ounce. The line of patent medicines includes 28 items, the most prominent of which are Wheaton's Bitters, Swaim's Panacea, Indian Specific, Steer's Opodeldoc, Lee's, Jewett's, Dean's, Mead's, Anderson's, Hooper's and Davenport's pills. No change is noted in the prices (?) of these goods, their value being as great to-day as ever. Assorted white phials, English, are listed at \$3.00 per gross, and American, green, at \$2.75. A half-pint graduate cost \$1 in the olden days, while a pint measure cost \$1.67.

F. Ducat has bought the drug store of J. J. Harrah, corner Williams and Myrtle streets, and moved his stock to Twenty-third and Myrtle streets.

F. E. Clough, for some time prescrip-tionist for A. S. Parker, Woodward avenue, has entered the employ of T. H. Hinchman & Sons as traveling salesman. He is succeeded with Mr. Parker by C. H. Marion.

William E. Eberbach, son of Christian Eberbach, Ann Arbor, died January 25th, of consumption. He was 39 years of age, a graduate of the class of '88, Department of Pharmacy, U. of M., and was, until failing health prevented, engaged with Eberbach & Son. He retired the evening previous to his death feeling as well as usual, and was found dead in the morning.

The Brown Pharmacy Company has been incorporated with a capital stock of \$10,000, one-half paid in. The shares are to be owned as follows: Wm. J. Brown, Detroit, 25; Jas. G. Donley, Detroit, 475; Geo. W. Brown, Port Arthur, Ont., 500. This concern will operate the business which has been carried on under the name of Brown's Pharmacy.

It was incorrectly stated in the January 1 issue that Judge & Whitmarsh, corner Grand River avenue and Twelfth street, were succeeded by R. H. Whitmarsh. For R. H. Whitmarsh it should have read S. P. Whitmarsh, who a few days since succeeded in disposing of the property and good will to Chas. Moorland, who will continue the business at that location.

CHICAGO.

Chicago, January 25.—An explosion in the drug store of the American Pharmacy Company at State and Congress streets, at noon, January 19, burned Louis Mendel, a clerk, and damaged the stock of the concern to the amount of \$1,000. It is thought the explosion occurred as the result of a considerable leakage of natural gas from a stove used in the store. Immediately after the explosion Mendel rushed from behind the prescription counter, his clothing being on fire. Before the flames were extinguished his eyes, face and limbs were terribly burned, and in some places the skin peeled off. He was taken to a physician's office and his injuries given attention. They are not considered fatal. Manager Reeves of the Pharmacy Company was also slightly burned. The firemen had no trouble in confining the blaze to the rear portion of the store.

L. C. Hogan, the Englewood druggist, has been elected president of the State Board of Pharmacy.

The Chicago salesroom of the Charles Lippincott Co., so long at 34 Dearborn street, has been removed to 264-270 5th avenue.

In common with all other branches of business, the retail drug trade of Chicago has been liberal in contributions to the fund for the relief of the unemployed and sick poor.

Druggist L. K. Waldron is in ill health and is absent on an extended holiday. He will take in the Midwinter Fair at San Francisco, and it is rumored that he may buy a winter home in California.

The Simmons Cigar Co. succeed the old firm of Simmons, Neumann & Co. Mr. Neumann withdrew from the firm January 1st, and has since started in business for himself under the name of Louis Neumann & Co. The latter firm occupy the same building that Simmons, Neumann & Co. formerly did.

The work of installing the specimens in the Field Museum, which is to occupy the Fine Arts building at the World's Fair grounds, is progressing rapidly. The entire floor space available for display purposes aggregates 225,000 square feet, and over 30,000 square feet of this will be used for the botanical department.

Henry S. Wellcome, of Burroughs, Wellcome & Co., London, Eng., formerly of Indiana, has decided to present to the Senate of the United States the portrait of Pocahontas which hung in the library of the woman's building during the exposition. This portrait of Pocahontas was painted from life after she was converted to Christianity and became Mrs. Rolfe.

A delegation of liquor dealers called upon Mayor Hopkins, January 10, and complained of the sale of liquors by drug store keepers and retail grocery store proprietors. The Mayor promised to look into the matter and gave instructions to the Chief of Police to make a census of the saloons of the city. The delegation presented the Mayor a list of more than 500 places where liquor is sold without a municipal license. The Mayor said he would have them carefully examined.

In Louisville an order has been issued to policemen that they shall not drink liquor in drug stores.

ST. LOUIS.

St. Louis, January 22. There is no talk about either the wholesale or the retail trade being good. Our representative wholesalers and retailers do not talk enthusiastically about the condition of business, but they are hopeful.

As a rule, when a new year begins, tradesmen feel encouraged, but this year (1901) is an exception. There is too much general depression throughout the whole country for the drug trade not to feel it.

With a relaxation of the stringency, financially, there will be a speedy awakening in business. Retailers are in need of goods, but they are not anxious to buy and carry them, and the wholesalers are not pressing them to buy.

A ripple of excitement pervades local drug circles over the coming meeting of the Interstate Retail Druggists' League. The president of the St. Louis Apothecaries' Association, under date January 13, addressed a communication to the president of the St. Louis Wholesalers' Association, asking for a conference between a select few of the retailers and the wholesalers, that their representation at the coming League meeting, whether by delegate or written communication, might be as intelligent as possible, but at this writing, the 20th, no response has been received. The Detroit plan is believed by some to contain evidence of a departure from old customs by proprietors and wholesalers, and kindly permits the retailer to share some of the protection from cut rates they themselves have enjoyed these years past; while others have no confidence in the movement, shake their heads, and refer to past resolutions of the N. W. D. A., and point to their shelves in a significant way, indicating an early divorce from patent medicines.

Many drug stores are now conducted differently from former practices, they refusing to handle almanacs or any advertising matter whatever of proprietors whose goods are sold by "cutters." The noticeable absence of the enameled letters so conspicuously displayed up to a recent date on the plate glass windows of drug stores is another feature of silent and unrelenting war.

Thomas Layton, the Grand avenue druggist, in a correspondence to Meyer Brothers' Druggist, says concerning the Interstate League meeting, to be soon held in New York:

"The 'Detroit plan' will be the all-absorbing question when the delegates are assembled. . . . The interests of the wholesale and the retail druggists are inseparable, and neither can afford to do that which would work an injury to the other. The proprietor cannot well afford to do that which would antagonize either, and dare not antagonize both. Any reasonable demand made by both wholesaler and retailer must and will receive attention. The concessions recently made by the proprietors (and when I say concessions I mean limiting the sales of their products to the retailer druggist) are, for a mainly the result of the unselfish efforts of the wholesale druggists. It has been the opinion of the writer for several years past that relief from the dry-goods drug stores and the scaling to decrease the same through the united efforts of the three branches. Antagonize either and all plans will fail. This occurs to me to be an opportune moment for the retailers of St. Louis in particular, and the entire country in general. . . . The time is near at hand when the proprietor will no longer be content to decrease the scalper in order to make you fellows hustle, provided 'you fellows' will hustle just a little in your own behalf. The wholesale trade now stands ready to bear

any reasonable request and join with you in a request to the proprietors, which, if tempered with reason and justice, will be cheerfully granted. The League and its little platform are all right and certainly deserve your encouragement. . . . Let us all get together under one common banner and fight for one common cause. The wholesalers and proprietors will be our allies."

The St. Louis College of Pharmacy Alumni gave their annual ball Saturday night, January 20th, at the Liederkranz Hall, and it was a grand affair and a perfect success. After a programme of 20 numbers, performed to the music of Saenger's Orchestra, supper was served a la carte, and the merry-makers went away happy. The ball was under the management of the following persons.

Executive committee—Chas. A. Lips.

Welcome committee—E. J. Ernst, Alb.

Unwelcome committee—E. J. Ernst, Alb.; F. Funsch, Wm. H. Lemmon, J. F. Schoettle, W. H. Kahre, Theo. F. Hagenow, Louis A. Fisher and E. A. Winkelman.

Reception committee—Dr. J. C. Falk, Prof. O. A. Wall, Dr. Chas. O. Curtman, Dr. A. H. Slippy, Dr. Enno Sander, Chas. Gietner, Prof. J. M. Good, Prof. Francis Hemm, Dr. O. E. Treutler, Dr. F. A. Temm, Dr. H. L. Goodman, Dr. Huko W. Kohler.

Floor committee—Louis Schurk, J. A. W. Fernow, Oscar F. Bausch, Henry Hassenbrock, Benj. Otto, O. F. Heltmeyer, S. E. Barber, Wm. C. Waldeck, L. C. Behrens and Wm. E. Angermueller.

Musical director—Wm. C. Bolm.

A revival meeting and the apothecaries have got mixed up at Nevada, Mo., Rev. W. J. Carpenter, in one of his sermons, touching on the subject of Sunday opening. He said that the druggists had consented to close on Sunday, with the exception of one man, and turning to Judge D. P. Stratton, who was seated in the audience, Rev. Carpenter said: "Judge, I will appear against that man when the grand jury meets again."

Dr. Seward A. Finney, the late and popular secretary of the St. Louis Board of Health, has fallen beneath the Grim Reaper's scythe. He died January 13, at Santa Fe, New Mexico, whither he had gone in search of health. Consumption was the cause of death. Dr. Finney had many friends in the pharmaceutical world, and numerous resolutions of regret and condolence have been adopted by different organizations. The remains were brought to St. Louis, the funeral taking place from the residence of his father, Judge John D. Finney, No. 335 Sheridan avenue; interment in Bellefontaine Cemetery. Dr. Finney was 31 years old and leaves a wife and two children.

Health Commissioner Homan's monthly report for December says that during the month there were 909 deaths from all causes, of which 248 were under five years of age. This shows a decided increase over the mortality for November, which was only 790. In December, 1892, however, the deaths reached 1,142. The present report shows that 152 persons died of pneumonia, while phthisis pulmonalis claims the next highest number of deaths—96. Bronchitis claimed 57 victims and senility 46. Typhoid fever carried away 11 persons. Diphtheria claimed 18, while cancer and malignant tumor carried away 25. Thirty-seven persons succumbed to la grippe, and 35 to convulsions and trismus. During the month there were 13 suicides, 4 deaths by homi-

cide and 19 deaths by accident. The number of births reported for the month was 1,319, an increase of several hundred over the number of deaths.

The St. Louis Paint, Oil and Drug Club held its regular monthly meeting and banquet Thursday evening, January 18, at the Mercantile Club building, with a large attendance. Rabbi Samuel Sale delivered an interesting discourse on "Single Tax," which was followed by the reading of a paper on "Cranks," by W. M. Schuyler. While the club giving the usual attention to the business interests of its members, this season is by no means confining itself to them exclusively, and has taken up social and economical questions of national importance. The club favors the addition of a Secretary of Commerce to the President's Cabinet, and also desires the speedy passage by Congress of a good bankruptcy law. As a result of the discussion of these interesting questions the attendance has been unusually large.

The first case of small-pox in St. Louis since 1891 was discovered at the City Hospital January 13. The victim is John Floyd, an Englishman, 25 years old, Floyd was immediately transferred to Quarantine Hospital and given treatment. He is reported to be doing nicely and will probably recover. The dread disease has not invaded St. Louis unexpectedly. Several months ago Health Commissioner Homan, as a precautionary measure, had all persons vaccinated who wished to be vaccinated. Something like 2,000 persons were vaccinated at the public schools and manufacturing establishments.

Dr. W. A. Fries, proprietor of the drug store at No. 152 South Broadway, was neatly victimized by a female counterfeiter a few days ago. The woman, who seemed of the refined sort, had made a number of small purchases and tendered in payment a \$10 bill; at least it looked like a bill of that denomination. The doctor gave her the necessary change, something over \$9. In leaving the store the woman seemed to be in great haste, and the doctor became suspicious. He examined the bill again and discovered that it was simply a \$1 bill raised to \$10. The matter was reported to the police. There seems to be a gang of women engaged in this sort of business.

A sensational story was printed in one of the St. Louis dailies a few days ago to the effect that Mayor C. P. Walbridge had been threatened with assassination. The threat was said to have been made through the mail. Mr. Walbridge emphatically denied the story. He said: "I have the utmost confidence in St. Louis citizens and do not believe they are of the Chicago type."

Dr. William Theodore Gempp, well known through his connection with the firm of Gempp, Miller & Co., manufacturers of medicated soaps, committed suicide by shooting on January 11. The doctor had been despondent for months owing to business difficulties, and had threatened self-destruction a number of times.

At a meeting of the Alumni Association of the St. Louis College of Pharmacy, held a few nights ago, Dr. Frank L. James delivered an interesting discourse on "Superstitions in Therapeutics, Ancient and Modern." His remarks were interspersed with his usual humor, which seemed to have a pleasing effect upon the large audience in attendance.

CINCINNATI.

Cincinnati, O., January 20.—The leading theme among the druggists of this city and vicinity is the sale of adulterated drugs. It is alleged that Food and Drug Commissioner McNeal is after the local pharmacists with a sharp stick, but the latter claim their business will stand the very closest scrutiny. In an article appearing in a local morning paper a few days ago it was said that the following are some of the results of the analysis which are contained in Inspector Jennings' report to Food Commissioner McNeal:

Cream tartar—Grossly adulterated.
Alcohol—Diluted with water.
Salol tablets—Short weight.
Borax—Not pure.
Epsom salts—About one-half strength.
Cinchona bark—Cheapest grade.
Opium—Exhausted, used before for tincture.
Spices—Adulterated with cheap grades meals and starches.
Cinnamon—Mixed with allspice and common oak bark.
Linsseed meal—Deprived of oil.
Quinine—Inferior quality and short quantity.

While the article has evoked no end of comment and caused endless discussion, the druggists are not in the least apprehensive. "Epsom salts—About one-half strength," said William Simonson, a well-known chemist. "Why, such a thing is ludicrous. Epsom salts, or sulphate of magnesia, is over 50 per cent water, consequently I think the State Inspector and his well-paid assistants are floundering around in something about which they know comparatively little." Other druggists spoke in a like manner on the same subject. The same paper published another item to the effect that "there has been a dispute of long standing between the doctors and the druggists over the matter of compounding prescriptions, and the feeling between the parties on either side has been very bitter. However, about two years ago concessions were made by both sides and harmony was restored. Since then, however, the doctors have been laying low but keeping their eyes open as to the character of the goods sold by the druggists on prescriptions. From time to time the doctors would compare notes and they made up their minds that the drugs sold were unfit for the purposes for which they were intended. The doctors among themselves were quite worked up over the matter and it is hinted that they were on the verge of calling the attention of the State Food Commissioner to the state of affairs, when that official stepped in and anticipated them by the sweeping investigation just accomplished. The physicians, therefore, are very much elated over the affair, as they hope that the action taken by the State official will have a marked effect for the better on the materials used in the future in compounding their prescriptions. They are a unit in commending the action of Commissioner Neal, and congratulating him on the good results that must follow. It is not unlikely that some expression of this feeling on the part of the physicians will find its way to the authorities at Columbus at no very distant day."

The last item received the same mark of disapproval as did the first as far as the druggists are concerned. The out-

come of the matter is awaited with some interest.

C. T. P. Fennel, Dr. Dickore and Messrs. Schmidt and Hoffman, all chemists of local repute, were in Squire Tyrrell's court last week making tests in some adulterated vinegar cases. The display of apparatus, together with the technical terms used by the disciples of the "hidden science" seemed quite a magnet, as a large throng was present for several days. Ex-Gov. J. B. Foraker was counsel for the State in these cases.

A committee appointed by the Academy of Medicine met recently to discuss the matter of making the Academy one of the strongest associations in the State. Dr. Comegys suggested that a banquet be given on the night of January 8, at the Lincoln Club Hall. All of those present agreed that that was the best way to get all the members together, and then the matter of legislation and other things could be argued. Every physician in the county, also those of Campbell and Kenton counties, Kentucky, will be invited.

The speakers of the evening will be Dr. Reamy, of the Ohio Medical College; Dr. N. P. Dandridge, of the Miami Medical College, and Dr. C. A. Reed, of the Cincinnati College. A large number of druggists will also be in attendance. An excellent musical programme will be rendered.

Harvey Striehorst, a clever young pharmacist, is now in charge of Voss' drug store at Twelfth and Vine streets.

John F. Haynes, formerly a well-known drug clerk of this city, is now filling a lucrative position with Fairchild Bros. & Foster in New York.

Dr. John C. Otis has established a neat and spacious office above his drug store at Sixth and Vine streets. The doctor is getting quite a practice.

John Fratz, the well-known druggist at George and Baymiller streets, who has been seriously ill, is much improved and his physician says he will fully recover his lost health.

John Keeshan, the veteran retail druggist, and his young bride are visiting friends and relatives in New York. The doctor expects to pick up a few novelties while in Gotham.

Louis Sauer, the druggist at Central avenue and Baymiller streets, has invented a new label case which for neatness and compactness excels anything yet seen in this vicinity.

E. P. Dehner, the young and energetic druggist at Seventh and Vine streets, has given a local firm the contract for entirely remodeling his store. The place will be entirely metamorphosed.

Albert Meininger has opened one of the finest drug stores in the city at Chase street and Hamilton avenue, Cummins-ville. Meininger conducted the drug store at Twelfth and Vine streets for several years.

George Kylius, the druggist at Liberty and Denman streets, was a "mark" for his friends, who last week were "kidding" him about an item in the Enquirer referring to his trained dog, which does everything save speak.

Some time during the night of January 17 burglars bored a hole in a rear door of H. F. Reum's drug store at Fifth street and Broadway, and reaching in unlocked the door. They then stole a bicycle, a lot of cigars and some cash from the money drawer.

CLEVELAND.

Cleveland, January 25.—An eastern representative has been in the city with a view of introducing a so-called coupon scheme among the retailers. The local trade has discountenanced this lowly money-making trick, and will oppose any like overtures in the future.

Several local druggists with social foreign connections have of late been importuned with all manner of inquiries as to the condition of the proprietary medicine business in this country, the opportunities for new articles, the cost of securing patents and copyrights, etc., etc., with a view of changing headquarters to America. It seems as if Germany, among other European states, intended to greatly restrict the patent medicine business through taxation and onerous acquisition measures. Most all of these letters refer to Chicago as a possible distributing point, which goes to show that the Columbian fair has done its duty abroad—

for Chicago, at least.

The Ohio penitentiary convicts will be vaccinated at an estimated cost of \$2,000.

Wooster Medical College has decided to build a new hospital, to cost about \$35,000.

A. A. Elliott, of Steubenville, is the new president of the Eastern Ohio Medical Association.

Dr. E. E. Beeman, of the Beeman Chemical Co., has gone to Jacksonville, Fla., to increase his avoirdupoise.

Gustave Tielke, the Detroit street druggist, is laid up with a broken arm and internal injuries inflicted by his horse.

Kent Humiston, of Columbus and Abbey streets, will shortly move to a more commodious store near his present location.

The city district physicians made 6,912 visits in 1893, and issued 8,029 prescriptions to 2,812 patients. The medicines cost \$618.37.

A representative of E. W. Hoyt & Co., Lowell, Mass., has been in the city for some time advertising Rubifoam and perfume.

Strong, Cobb & Co. have made quite a success with the "Frog Chasers" cough remedy, manufactured by the Columbian Medicine Co., Akron, O.

They say that the vanity of some adolescent "assistant pharmacists," commonly known as drug clerks, is only paralleled behind the hotel counter.

Drug clerks seeking engagements are warned against certain local employment bureaux, for they practice bare-faced fraud under the faulty law applying to them.

The Peruna Drug Mfg. Co., of Columbus, O., have built up quite a trade through constant advertising, but make a mistake in not recognizing class publications.

The Thirteen Club, composed of employees of Strong, Cobb & Co., enjoyed a dinner and social session at the Hollenden, January 17. The year's programme of work and amusement was also mapped out.

Edward Beckenbach, of Edward Beckenbach & Co., the Superior street druggists, was quietly married to Miss Jennie Hatch recently. So quiet was the affair kept that only a few of the trade knew of it now.

Fred Pelt, a local drug clerk, went to Wellington, O., the other day to collect some old claims. Fred formerly kept a drug store in the village. One debtor, en-

rogued by being dunned, had Fred arrested for selling liquor without a prescription. It's an ancient complaint, but Fred's in the hands of fanatics.

The Oil, Paint and Varnish Club, at its regular monthly meeting and dinner at the Hollenden, January 18, made arrangements for the establishment of an information bureau which will afford topics for discussion.

The Academy of Medicine held a meeting December 17 for the purpose of appointing a committee to inquire into the bills before the General Assembly providing for the creation of a State Board of Medical Examiners.

The Protective League, a local option organization of Wellington, O., has declared open war against the druggists. W. P. Near, of whom they aimed to make an example, was fined \$50 and costs for selling liquor without a prescription.

A "pl" in the transmission of the messages embodying the state incorporation news is responsible for the item relating to the Alliance Paint Co., in the last issue. The corporation will have nothing to do with paints.

A real live salamander inhabits the aquarium in E. A. Schellentrager's store on St. Clair street. The ugly lizard has proved quite an attraction and is worth his weight in gold. He was obtained from the fisheries exhibit in the "White City."

On January 10, Chas. W. Benfield, the tri-store druggist of the East End, appeared before the police authorities as complainant against one of his clerks, Fred D. Teeddale by name, who absconded with \$12 in cash and a \$50 express money order.

Meyer & Gleim's window displays in the Cuyahoga building are models of beauty and originality, and in keeping with the interior appointments of this modern drug palace. It is gratifying to know that window decoration has at last been recognized as an advertising feature.

William S. Furze, the druggist of 197 St. Clair street, driven to the wall by the hard times, made an assignment to Frank C. Friend for the benefit of his creditors. Liabilities will probably reach \$4,000, while the assets are only \$1,500. The Sheriff levying on the stock on a cognovit note of \$267 precipitated the failure.

When the State Health Board made vaccination compulsory it should have commissioned proficient practitioners. Innumerable cases of improper vaccination have been reported, and it behooves the authorities to remedy the evil at once. There are any number of ambitious druggists who could give this matter proper attention.

The Ohio druggist is verily a much harassed individual. To his many trials and tribulations has been added Haskell's local option bill, providing that every druggist must register every sale of spirituous and malt liquor made upon a physician's prescription, and that every citizen shall have access to such register. It goes without saying that the drug trade is impeding the progress of the bill with all means at command.

The removal of the unsightly fruit stand on the Public Square side has improved the exterior advantages of May's drug store not a little. The new semi-bay window affords the window-dressing clerk ample opportunities to bring out the firm's drawing cards. While the improvements made may cover existing wants, a

few recess or after-noon rooms or stalls would pay better than office rooms, for the city has an extra supply of the latter. "Mako" Urban, the urban druggist, tells the following joke: "Just before closing up, recently, a colored man entered my place, chattering as he was coming up: 'Yo parson asked me to come heah and git some wine for de communion service to-morrow.' 'What kind do you want?' asked I. 'Well, really, sar, I ain't particular, but my wife she is powerful fond of gin,' retorted the negro."

Three burglars entered the store of Schellentrager & Hoehn, corner Superior street and Norwood avenue, on the night of January 22, but were scared off by the approach of Henry Toeltmann, who sleeps on the premises. Although he fired three shots after the closely retreating forms, no blood was spilled. Supt. of Police Hoehn intimates that the burglars were more scared at the clerk's name than at this revolver practice.

The first birthday anniversary of the Cleveland Medical Society was held December 12 at the Hollenden. The following officers were elected for the ensuing year: President, W. H. Humiston; first vice-president, O. B. Campbell; second vice-president, W. E. Wirt; treasurer, N. Stone Scott; recording secretary, O. Thomas; corresponding secretary, J. E. Cook; librarian, J. L. Hess; censors, J. F. Armstrong, F. C. Scott, Herman Sauer, A. F. House, E. G. Carpenter.

The Cleveland Drug Store Fixture Co. has handsomely fitted up the new pharmacy of S. H. Lederer, corner Brownell and Prospect streets, with show cases of beveled glass and wood work of selected quartered oak. Lehn & Pflink furnish the sundries, powdered drugs and essential oils, patent medicines and perfumes come from Benton, Myers & Co., the show globes and shelf ware from Whitall, Tatum & Co., and a beautiful onyx fountain from J. W. Tufts.

Instead of Dr. Schlewand, as was at first supposed, Henry L. Payne, of 1657 Wilson avenue, was appointed to fill the position of Joseph Mellor, deceased. Mr. Payne is a graduate from Case School, and has been employed as chemist by the Otis Steel Co., of Washington, D. C. While there he also practiced in the U. S. chemical laboratory. Under the rigid laws governing the inspection of drugs and food the office of City Chemist has become quite important, and it needs a man of Mr. Payne's caliber to dignify it.

The committee on legislation of the Cleveland Medical Society have their hands full devising plans and means by which to push the Avery bill to a successful issue, for the Homeopaths and Eclectics are up in arms. The measure endorsed by the medical convention at Columbus in December was entirely non-partisan, while the Avery bill gives the Governor authority to appoint nine physicians to constitute a board of medical examiners and licensers, who shall be graduates of reputable medical colleges and who have practiced medicine in this state for ten years, but none of whom are connected with any medical college or school. In forming a medical board, the Governor will be largely influenced by his own prejudices and the advice of his friends, and as the Allopathic physicians are by far in the majority in the state, their prospects of controlling the entire board are transparent—hence the uproar.

PEORIA, ILL.

Hamilton Catlin represented Meller's perfumes, of St. Louis.

The editor of this journal asks how we like the new dress. Great!

B. T. Van Alen made his after-Christmas bow, with a line of Lundborg's perfumes.

J. S. Henry, formerly with Lazell, Duley & Co., now makes his appearance with a Crown Perfumery Co.'s grip.

Peter Bourscheldt, pharmacist on First street, was presented with a boy on January 16th; on the 19th his wife died. The sympathy of all our pharmacists is extended to him.

Chauncey Clarke, one of the proprietors of the distillery that manufactures Clarke's rye, was married in Arizona recently. His wedding trip extends around the world.

Wm. Kenyon, formerly of Singer & Wheeler, is now reported to be connected with Lord, Owen & Co., of Chicago. Frank Conway, of the sundry department, has taken his place and yanks the grip.

Wm. Ohl, the manufacturing pharmacist, not only pays attention to the preparation of elegant pharmaceuticals, but also to American politics. He is one of the pillars of the American Club, and not long ago visited Chicago with the intention of tendering an invitation to Mayor-elect Hopkins to attend the annual ball of the club of this city. Mr. Hopkins accepted.

Since the holidays business has been as stagnant as an old pool of prairie water. Every Republican blames the Wilson bill, and every Democrat blames the Republicans for it; with all the blame, the blamed thing requires some time to better it. The winter here has been one with a great many warm spots in it, and the prospect for ice is very slim. Although ice men claim to have enough left for the summer, they will pool, and up goes the price, while the price of ice-cold soda never moves up an inch.

Dr. J. F. Percy, of Galesburg, Illinois, lectured on "Vivisection" before the Peoria Scientific Society, Friday, January 11th. The lecture was practically the same as delivered before the Tri-State Medical Society last October. He dwelt on the benefits derived from the study of vivisection on the lower animals, especially the dog. In the minds of the masses, vivisection literally means cutting and slashing, regardless of pain, of the animal experimented on. But by the use of anaesthetics pain is avoided, and everybody who has any feeling for the dumb animals bears that in mind.

It is this time perfectly proper to announce that the Illinois Pharmaceutical Association will meet here this summer. All the members are invited to attend and a royal good time will be expected. It has been some years since the last meeting in this city. A great many carry pleasant memories of the past. All pronounce the meetings held here better than any others in the state. In the first place, we have a great city, not only in being on the map, but that we cut a figure when it comes to Uncle Sam's revenue; besides, it is the most beautiful city in the state. About the particulars of the meeting there will be more next time.

EVANSVILLE, IND.

Ed H. Nicheus has accepted a position with Benj. J. Bussing.

Alf. Levy, of Chicago, spent the holidays with his parents in this city.

Henry Dreyes has taken charge of the Gerard Pharmacy in the West End.

Secretary C. P. Beard, of the E. P. A., has ventured into the insurance business.

Tepe & Son, Second avenue and Columbia street, have dissolved partnership.

Louis Bessel, of the firm of Tepe & Bessel, was recently married to Miss Bertha Jack.

Geo. Haynie, the genial president of E. P. A. fame, has been appointed surveyor of customs.

Greer Bros., of 303 Main street, moved their stock to corner Walnut and Chestnut streets.

Chas. F. Foster, formerly of Greer Bros., contemplates the opening of a new drug store soon.

A new drug firm has sprung into existence in the Bomm Drug Co., which locates at 323 Main street.

Henry Tepe, the senior member of the firm, retires. Louis Tepe assumes charge and continues at the old stand.

The Daugherty-Crouch Drug Co., of St. Louis, continues to send its regular physicians among Evansville druggists.

Wm. Moog, formerly at Gerard's drug store in Indianapolis, has accepted a position with Wm. Weber, Seventh and Main streets.

Fowler, Dick & Walker, the great dry goods and notions firm of this city, intend to put in a full line of patent medicines, to sell at cut rate prices.

Ed. Giel, of Chas. Leich & Co., who was missing some few days, has bobbed up serenely, having been out on a still hunt in the wilds for game.

Wanted to know, the whereabouts of the gang of fishermen who contemplated the eruption of the Wabash River last fall after leaving Evansville.

A. Walter, doing business at 1621 Main street, has sold his stock of drugs to August Pfaeflin, a recent graduate of Chicago College of Pharmacy.

J. C. Mendenhall, formerly of J. C. Mendenhall & Co., manufacturers of the 3 C remedies, has opened a neat pharmacy corner Fourth and Oak streets.

Jos. Stammel, who has charge of the Wabash drug store, will visit his old home, Cincinnati, soon, with the intention of making a prolonged stay.

A. H. H. Steffert, formerly in the drug business in this city, but now a student at the Louisville Medical College, spent the holidays with friends in this city.

It is rumored that John Wytenbach, who has charge of Haynie's Pharmacy, will purchase the stock and good will of C. G. Schultz, corner Eighth and Walnut streets.

At the last regular meeting of Drug Clerks' Union No. 46 it was decided to celebrate its first anniversary by a grand concert and entertainment at Evans Hall, February 1, 1894.

Prof. Oscar Mueller, who has in the past year been in charge of the jewelry department (in connection with his regular duties) of Ralston's drug store, has gone into the watch repairing business.

Wm. E. McJohnston moved his stock to Terre Haute, Ind., where he will locate. The store formerly occupied by Wm. E. McJohnston has been reopened by Barney Blackburn, who has refitted it in

modern style. Chas. Liech & Co., wholesale druggists of this city, furnished the glassware, drugs, etc.

Christ Butch, an Evansville boy, and a late graduate of St. Louis College of Pharmacy, who recently married at St. Louis, Mo., spent the holidays with his parents in this city. He contemplates locating here in the near future.

President George W. Haynie expects the E. P. A. to see that the members of the Indiana Pharmaceutical Association are well cared for when that body meets here in May and has appointed committees on finance, railroads, entertainment, hall, exhibits, reception, programme, hotels and queries to attend to their comfort. The committees have already met to arrange the details of the affair.

INDIANAPOLIS.

Indianapolis, January 25.—Four men entered the drug store owned by H. C. Brown, at the corner of Tennessee and Seventh streets, about 6:30 o'clock on the night of the 13th inst., and as the clerk advanced to wait on them each pulled a revolver and pointed straight at his head, ordering "hands up." One advanced to the till, took out \$6 and several dollars' worth of stamps, and then all backed out the door. They have not been captured.

A leading lawyer of this city says an expert is only one who does know absolutely what he professes to know, and applies his definition particularly to chemists. He instances a case where samples of milk fresh from one cow were put in four clean bottles and passed to an analytical chemist here, who, after analysis, reported the milk in one of the bottles to be pure; in the second bottle, to contain 31 per cent of water; in the third, 23 per cent of water; and in the fourth, 14 per cent of water, and a marked difference in the specific gravity of the milk in the different bottles.

Postoffice Inspector Fletcher, on the 19th inst., arrested at Terre Haute, Ind., George E. Bennet, a druggist, on a charge of using the mails to defraud persons who answered his advertisement for postage stamps. He offered to buy stamps of any denomination, and asked to have them sent to him for his approval. He used several names in advertising, and is charged with forging the name of a well-known citizen signed to a recommendation. His victims complained to the post-office authorities that they never heard from him again after sending their stamps.

J. W. Hornaday succeeds Hornaday & Matthews at Mooresville.

Henry D. Ridgely, 100 E. Market street, has disposed of his business to the Navin Bros.

M. A. Stewart, of Wabash, has retired in favor of his former manager, Charles D. Bradley.

The Marion County coroner's bill for '93 amounts to nearly \$12,000, including witness fees and charges for post mortem examinations.

Herbert G. Ashbrook, one of the office force at the Stewart House, has been away from his desk two weeks on account of the gripe.

Ridgeville had a scarlatina epidemic from the 3d to the 8th inst. Twenty-three cases developed, but wholesale disinfecting and good quarantine broke up the plague and all's well.

The wife of Henry D. Porterfield, one of Ward Bros.' traveling salesmen, died at her home in this city on the 20th inst. of consumption. She leaves three children.

Wholesalers say that 1894 has so far proved very satisfactory. Retailers, they say, continue to squeal a little, but succeed, nevertheless, in keeping their accounts square.

Charles Erhardt, at one time a clerk at Pantzer's, has braved the exigencies of exploration and has opened a drug store in the new addition in the extreme northwest section of the city, beyond Fall Creek.

The superintendent of the (free) city dispensary reports that during '93 there were 7,103 persons vaccinated at the institution at a cost of \$46.50, and that the number of prescriptions filled during the year was 18,555.

Some months ago the South Bend Tribune stated that a certain citizen of that town had been poisoned by a lotion used upon him by a barber of the town. A libel suit for \$5,000 followed, which has just been decided in favor of the defendant.

One of the Crawfordsville firemen and his family ate headcheese on the 18th, purchased in open market. They were taken sick and the doctor says from arsenical poisoning. Since then headcheese has been a "drug" on the Crawfordsville market.

Dr. Eisenbeis' bill of \$1,200 for five (stomach) analyses in the Koersters case has been rejected by the County Commissioners, who will not say how much, if anything, they think they ought to pay. The board has allowed other chemists \$300 for a single qualitative analysis.

C. R. MacLennan, the old-time Madison druggist, has sold to Charles E. Heberhart, who returned to Indiana from St. Paul, Minnesota, to improve his wife's health. The change of climate, however, did not prevent a fatal ending to his life partner's sickness.

Druggists are not interested in the rivalry of cigarette firms. One of the leaders has the name of the brand in a huge electric sign of 250 lights at the intersection of our two most prominent streets. Opposite, on a similar high plane, the rival has during the past week been operating the World's Fair search lights and sending their rays miles in the sky to scare the uninformed or superstitious "natives" into the belief that the world is about to end. In the meantime the newspapers have not been overlooked, and the sales of the little smokes must have been refreshingly increased.

The automatic chocolate and chewing gum machine in front of Green's drug store, Elwood, recently failed to respond when the penny was dropped in, and the proprietor felt that it was on account of there being a houseful of pennies already there, leaving the last one not enough room in which to get in its work. A post mortem was instituted, and Mr. Green has not yet recovered from the sight that met him when his bowels were exposed. Buttons, little and big, of every color and from every article of wearing apparel known were there, also keys and rings and bits of gravel and stone, small nails and pieces of wire and chunks of buckshot lead galore. He has, however, philosophically concluded that one oughtn't to look for too many pennies these hard times.

TWIN CITIES.

St. Paul, January 25. The retail druggists of St. Paul and Minneapolis have no particular boast to make of improved conditions in the past month or so, but are progressive enough to keep an eye on the changes that are constantly being made in the status of the corner drug store. They realize that they have to keep an eye on the physicians as well as the department stores and at the same time keep both eyes on the general public. The experience in going through the recent holiday season has shown that it is not only the stringent times that affect the trade of the drug store in toilet supplies and novelties. The department stores and even those that are supposed to be more restricted in their lines of trade have made such heavy inroads into the legitimate trade of the drug store that the sales of perfumes, soaps, toilet articles, as well as medicinal preparations, have had a heavy falling off in the corner drug store.

With one eye on the physicians the pharmacist has seen that there is a growing disposition on the part of the allopathic as well as the homeopathic physician to dispense medicines directly to the patients without the medium of the local apothecary. It is seen that the medical colleges impress upon the student the benefits as well as the profits to be attained by the physician dispensing as far as possible with the neighborhood drug store. Trisulphate tablets are being commonly used. The agents of the houses that manufacture tablets are cultivating the acquaintance of the physicians and selling to them direct in place of selling exclusively to the drug store. This course is pursued by the manufacturer because he wants to make sales and he knows that the jobbing houses, at least those in the Twin Cities, will not sell directly to the physician, as they have a rule to protect the retailers. Then the pharmacist finds that the old standard drugs do not cut as big a part in his prescriptions as formerly. The physician is constantly devising means to get his patients to take the medicines left and not leaving them on the shelf, throwing them out at the window or making a pretense of swallowing them, and actually spitting them out when the head of the nurse is turned.

New preparations that are as palatable as possible are being resorted to to please patients and so delude them into swallowing the nostrums and potions. This is all at the expense of the druggist. The new preparations must be on hand, or if not at hand must be sent for to the wholesale house, in order to fill prescriptions. It may be necessary to pay a dollar for a bottle of some preparation out of which to get an ingredient for a fifty cent prescription and the original package may stand on the shelf a long time before it is needed again. This does not happen at rare intervals, but often several times in a day. It is no wonder when this fact is considered that the druggist sighs at small profits and wishes for the old time physician who never used more than three simple ingredients in his prescriptions during the course of a life's practice of medicine. Neither the druggist nor the physician is willing to admit that he is at war, the one with the other, because they must work together and the fact that they are secretly resisting the

encroachments upon each other is hidden under a bushel. The physician handles his own medicines to some extent and the druggist prescribes to the prescription desk patients. Of course the usurpation of the field of the druggist by the physician and the practice of medicine by diagnosing a case on the part of the druggist are not common to a general extent, yet there is a very considerable infringement of rights and the doctors on both sides of the line are aware of the fact and disagree as to the means of solution when it is proposed to remedy the condition. Your correspondent in his talks with physicians and druggists of the Twin Cities has found that there is a jealousy between the practitioner and the dispenser of medicine and they furnished the material for the foregoing observations.

A. T. Hall, who has for a number of years conducted a modest drug store on the West Side, lately moved into new quarters in the Lowry Arcade building in the center of the business part of the city. His new pharmacy is one of the most handsome in the city. One entire side and the front are of plate glass and the interior is fitted up in the most modern and handsome manner. The building was completed a few weeks ago and some of the most prominent surgical and medical specialists in the city have taken quarters in the building. The peculiar adaptability of the building for the purposes of the doctors is the reason that it is filling up with physicians. When it became known to Mr. Hall that about twenty of the leading physicians of the city were about to make a hegra to the building, he saw the advantage to be gained by securing the corner apartments on the first floor and lost no time in changing his quarters to his present location.

The state Board of Pharmacy has made some changes relative to its examinations. It was determined to require applicants for license to be submitted to a practical test in laboratory work in addition to the written examination. This was agreed upon at the meeting held on January 16 and 17. To carry out the plan it was determined to change the place of examinations from the capitol to the pharmaceutical college of the State University so as to secure the use of the pharmaceutical laboratory there. Minnesota is said to be the second state to adopt the practical methods of testing the ability of applicants for certificates to dispense medical preparations. The pharmaceutical college of the university has been lately supplied with a large amount of additional appliances and the standard of the college is being materially advanced under the supervision of Dean Wullung.

John F. Broderick, general manager of the Ryan Drug Company, says that trade is good and has a more hopeful outlook. Business in the wholesale drug line has not been affected as much as in other lines. While there was a falling off in the volume of business in his house the past year, there is a new impetus to trade and a healthy growth is shown at the present time. The house is kept busy with a full force of men taking care of the legitimate business, without making extra efforts to push sales. Collections for the past three months have been rather better than fair and no trouble has been had with debtors. He thinks

that the retailers have been working off the old supplies and expects a heavier trade for the future.

There have been some complaints in the outskirts of Minneapolis that druggists have been selling liquors as a beverage. These complaints came from neighborhoods where saloons are prohibited. Fred Erickson was taken before the police court on January 11 charged with two violations of the law against selling liquor without a prescription. He was fined \$50 for a sale made on January 4 and the case against him for selling on the 6th was continued for thirty days.

Noyes Bros. & Cutler are satisfied with the business prospects as well as the volume being done by them at present. There has been but a light falling off in their trade as compared with wholesale houses in other lines. Their manufacturing department is running up to its full capacity, which was largely increased recently. The house has a largely increased trade in specialties, which it began to push a few months ago in the manufacturing department. No backward step is being permitted by this house, but on the contrary attention is being given to the growth of business.

S. H. Groshong has opened a new drug store at Waubay, S. D.

J. E. Pindland has opened a new pharmacy at Portland, N. D.

G. W. Silcher, of Renville, Minn., has succeeded A. W. Silcher & Co.

G. P. Jones & Co. have succeeded Jones, Riley & Co., at Raymond, S. D.

A. Sutherland, Jr., has started a new drug store at Mound City, S. D.

The J. Hildeshelm Co., of Alton, Ia., has succeeded the Lieb Drug Co.

The Missoula Drug Co. is the name of a reorganized pharmacy at Missoula.

Palmer & Green, of White, S. D., have succeeded M. L. Palmer in the retail drug line.

E. Horseman has purchased the drug store of J. D. Taylor at Church's Ferry, N. D.

Moore & Co., of Big Timber, Mont., have opened a branch drug store at Stillwater, Mont.

L. M. Kaplam, of Adrian, Minn., has become proprietor of the Kaplam Bros. pharmacy.

C. F. Little has started a new drug store with a new stock of goods at Lewiston, Mont.

Nelson & Johnson, of Granite Falls, Minn., have opened a branch drug store at Echo, Minn.

E. D. Irvine has purchased a new stock of goods and opened a new drug store at Emerald, N. D.

E. E. Gould, of White Sulphur Springs, Mont., has purchased the drug store of Hartfield & Rand.

A. F. Backhaus has succeeded Bright & Schmidt in the pharmacy at 129 Nicollet avenue, Minneapolis.

A. S. Putnam & Co., of Manistiquet, Mich., is the name of a firm succeeding Thompson & Putnam.

Cutler & Rand, of Park Rapids, Minn., have become the owners of the P. D. Winship & Co. drug store.

J. J. Rems has added a new drug store to the town of New Prague, Minn., and has a new stock of goods.

Gulnter & Dow, of Sioux Falls, S. D., have bought one of the drug stores of W. H. Nelson, an insolvent, who recently made an assignment.

Robertson & Cowan is a new firm at Cottonwood, Minn., that succeeds J. B. Robertson.

S. J. Horn, of Minneapolis, has purchased the drug store of Henry Jones at 2835 Chicago avenue.

The Ley Drug Co., of Lime Springs, Ia., is the name of the new firm which the Searles & Ley drug store.

F. M. Billings & Co. have purchased a new stock of drugs, etc., and started a new store at Langford, S. D.

Parchen & D'Acheul Drug Co. is the name of a new firm at Helena, Mont., that succeeded H. M. Pachen & Co.

J. M. Kistler has succeeded the firm of Horn & Kistler in the pharmacy at Humboldt street and Sixth avenue south, Minneapolis.

William Mathlen, of Verdon, S. D., has become the sole proprietor of the drug store formerly run in the name of Mathien & Fletner.

G. W. Petrie, of Fairmont, Minn., has become the proprietor of the pharmacy owned by Ramsdale & Holcomb, who went into bankruptcy.

KANSAS CITY.

Kansas City, Jan. 25.—The retail druggists have, during the past month, been in conflict with a fee grabbing prosecuting attorney and his allies, a lot of deputy constables. The law prohibits druggists, not holding regular dram-shop licenses, from selling liquors in less than three gallon quantities, except upon affidavit that the liquor is to be used for scientific purposes, or unless a physician's prescription is presented. The druggists have generally ignored the law and have been in the habit of selling in small quantities to regular customers without demanding the affidavits. The prosecutor furnished a horde of disreputable constables with money and ordered them to buy "evidence" at the drug stores. Then he issued a hundred warrants for the arrests of the druggists. That it was only a scheme to make costs and fees for the officers was soon demonstrated. A dozen of those first arrested pleaded guilty and were told that there were three cases against each; that the fines would amount to \$3 and that the costs were \$46. A few paid. The newspapers exposed the scheme as little better than blackmail and the Retail Druggists' Association retained lawyers to fight the cases. The constables ceased to serve the warrants and bestirred themselves to get evidence to bring convictions before a jury, on the cases already begun. A clerk for J. T. Young was tried and acquitted and the prosecutor was slow to try another case before a justice of the peace, but took the matter before the grand jury, which will not make a final report for some time.

That the prosecutor was not actuated by an honest motive was demonstrated by the fact that the minimum fine for a violation of the law was \$40, but that he might make more fees he altered the charge to a general misdemeanor, that a fine of \$1 might be made in more than one case, and the costs be tripled by dividing the amount of an ordinary fine, so that it would largely go as "costs." The justice and constables had already become notorious by reason of "fake" cases brought solely for the costs.

There are a very few druggists in this city, not more than half a dozen, who

have made their stores little better than fashionable bar rooms, even going so far as to sell beer from their soda fountains, and whisky by the drink, but the constables, for some reason, failed to arrest them, taking only the legitimate druggists. The agitation has undoubtedly wrought some good, in that it has put a stop to indiscriminate sales of liquor, but the druggists are unanimous in agreeing to continue to sell, for family or medicinal use, until the Supreme Court shall pass on the law. Had the dram-shop druggists, who disgrace the profession, been the only ones arrested, there never would have been any complaint.

The Missouri State Board of Health met in annual session in Jefferson City a few days ago and elected the following officers: President, Dr. F. J. Lutz, of St. Louis; Vice-President, Dr. A. W. McAlester, of Columbia; Secretary, Dr. W. P. King, of Kansas City. But little of general interest was done at the meeting.

The City Council of Emporia, Kas., has passed an ordinance placing so high a license tax on the sale of cigarettes that the sale of tobacco in that form will be effectually stopped. The ordinance also provides that no children under the age of 16 years shall be sold cigarettes. A recent investigation made by a number of parents showed that not only a majority of the boys, but also a large number of the girls were addicted to the pernicious habit.

The Gem Pharmacy has been opened at the corner of Sixteenth and Wyoming streets.

T. L. Harrison, traveling for the Graham Soap Company, of Chicago, was here recently.

Mathew Miller is now making many new friends as clerk at the Woodland Pharmacy.

A representative of Johnson & Johnson, New York, was in Kansas City a few days ago.

Robert J. Holmes has given a chattel mortgage for \$3,142 on his new soda fountain to Charles Lippincott & Co.

The Alumni Association of the Kansas City College of Pharmacy will tender a banquet to the graduating class some time next month.

Dr. Liesch, formerly a druggist at Lee's Summit, near Kansas City, has moved his store to Lexington, Mo. He made a visit to Kansas City a few days ago.

Eli Tobias, formerly a clerk for O. W. Krueger, has forsaken his old profession for a new one, and has gone on the road with the Rose Watson theatrical company.

The young daughter of W. J. Bonesteel, formerly a druggist at Grand Island, Neb., has disappeared from her home in Kansas City, and it is thought she has drowned herself.

Mr. Campbell, formerly druggist for the dispensary of the Board of Health, is now a clerk in H. S. McDonald's drug store at the corner of Independence and Prospect avenues.

A popular Kansas City barber shop has introduced the "vaseline shave," as a luxury for a man with a tender face. Vaseline, nicely perfumed, is used as a substitute for soap lather.

T. L. Tucker, for twenty years a pharmacist in Elgin, Ill., has come to Kansas City and is now associated with O. W. Krueger, druggist, at the corner of Fifth street and Broadway.

Frank Bishop has discovered a rich deposit of ochre on his farm near the hamlet of Bethel, in Wyandotte County, six miles west of Kansas City, Kas. The mineral is being tested to ascertain its commercial value.

W. J. Brouse, O. Q. Clafin, H. S. Cooke and C. G. Pinckard, druggists in Kansas City Kas., South Side, were arrested for violating the prohibitory law. They fought the case in the police court and were acquitted.

F. W. McKay, formerly a drug broker in the Baird building, and Henry Tuttle, formerly manager of Clara Farabee's drug store, have formed a partnership and have opened a new drug store at the corner of Fifth and Harrison streets.

W. C. Lemon's drug store at the corner of Independence and Elmwood avenues, just outside the city limits, was destroyed by fire a few nights past. The fire started in the basement, probably from spontaneous combustion. Loss, about \$1,500; partially insured.

Joseph R. Erinkley has bought the stock of Dr. E. C. Wilson's drug store at the corner of Fifteenth and Locust streets, and has moved it to the corner of Eighteenth and Vine streets, where he has established a branch of his old Vine street drug store.

S. S. Winn, assignee of the Marshall Chemical Manufacturing Company, filed his report in Judge Slover's court January 29. It shows receipts during term amounting to \$3,463.07, and disbursements amounting to \$440.04. The total receipts up to date are \$7,145.25 and the total disbursements \$1,650.54.

J. W. Lynch, formerly a druggist at Blue Springs, was arrested in this city on a charge of being a fugitive from justice. Lynch escaped from the officers at Blue Springs several weeks ago, after having been fined \$100 by Justice Nichols for selling liquor to minors. Two other charges of a similar nature are still pending against him.

Harry Morrison, a graduate of the Kansas City College of Pharmacy, who has lately been connected with a drug store at Scotsville, Kas., has opened a drug store at the corner of Fourteenth and Campbell streets, in the building lately vacated by H. H. Gregory, who moved his drug store to the corner of Ninth and Wyoming streets.

James W. Hardacre, at one time proprietor of a drug store at the corner of Tenth street and Forest avenue, and lately with the Evans-Gallagher Wholesale Drug Company, has opened a new store on the southwest boulevard, near Pennsylvania avenue, in the building formerly occupied by Dr. Whittinger, who has moved his store to East Eighteenth street.

A. F. Price, who carried on the retail drug business at 1056 Union avenue, under the name of Frank Price, has made an assignment to Upton Eby for the benefit of creditors. According to Mr. Price the value of assets is \$10,000. The liabilities are not stated in the deed of assignment, but are said to be less than the assets.

J. V. Ellard, receiver for the Palmer Manufacturing Company, at the northeast corner of Twelfth street and Broadway, has filed an inventory and appraisal of the company's assets. The furniture, fixtures and merchandise are scheduled at \$9,827.71. The merchandise is listed at \$3,507, and the fixtures at \$4,082.

The stock in the store at Enid, Okla., is appraised at \$900. The appraisers were Frank A. Faxon, P. D. French and W. D. Charde.

Joseph Irven, lately from Honolulu, and who pretends to be an agent of the provisional government of the Hawaiian Islands, spent three weeks in Kansas City and succeeded in beating merchants out of many hundreds of dollars' worth of goods by means of a smooth tongue and a worthless draft. Among others he defrauded Druggist Graham, of Twelfth and Main streets, of \$35. He is an Austrian by birth, is of small stature, and wears a short beard.

The Marshall Medicine Company has filed articles of incorporation. The object is to manufacture pharmaceutical preparations, druggists' and grocers' specialties and toilet articles. The capital stock is \$10,000, all of which has been paid in full. It is divided into 100 shares, of which Elizabeth Leach owns ninety-eight shares and George W. and Margaret J. Marshall one share each. The manufacturing will be carried on at 417 East Eighteenth street.

Miss Minnie Huston, a young girl residing with her parents on Second street, between Lynn and Church, in St. Joseph, Mo., came near meeting her death by drinking a freckle lotion. Miss Huston had recently purchased a bottle of medicine guaranteed to remove all the freckles from her face. She had used only a small portion of it in the manner intended when she became dependent on account of illness. She decided that she would take her life, and, accordingly, took a very liberal internal application of the freckle lotion. A physician was called, and by using the stomach pump succeeded in saving her life. The medicine contained corrosive sublimate.

THE SOUTHWEST.

A fire at Chillicothe, Mo., destroyed the drug store adjoining the Henry house, a few days ago.

Putnam Brothers, druggists of Atchison, Kas., have failed with \$3,000 liabilities and \$1,700 assets.

The commissioners of Leavenworth County, Kas., have appointed Ed C. Fritsche county druggist.

Burglars broke into Dr. Van Cleave's drug store at Nowata, I. T., a few nights ago and stole quite a large sum of money.

J. E. H. Raiffley, druggist at Hillsboro, Tex., has executed a deed of trust for the benefit of creditors. Total liabilities, \$137,72; assets unknown.

The Mound City Paint and Color Company, of St. Louis, has elected Norris B. Gregg, W. H. Gregg, Jr., and E. H. Dyer directors for the new year.

Burglars became bold in Richland, Mo., recently and broke into most of the stores in the town. Among those which suffered by the raid was Vincent's drug store.

The Crescent Color Company, of St. Louis, has elected W. S. Millen, president; William M. Scudder, vice-president; J. A. Sublette, secretary, and E. J. Walker, treasurer.

The drug store of Reeks & Calbroth, at Powersville, a small town in Putnam County, Missouri, was destroyed by fire January 15. The stock was valued at \$3,000 and but little of it was saved. It was insured for \$1,200.

Fire swept over Sater, Mo., recently, and among the buildings destroyed was E. O. Allen's drug store. A little of the stock was saved. Allen's loss is estimated at \$3,000, with a \$2,300 insurance.

The drug store of Sewell Bros., at Everest, Kas., was totally destroyed by fire recently, together with several small buildings, to which the fire spread. The loss is estimated at \$10,000, with but little insurance.

The Brown Medicine Company, of Leavenworth, Kas., has been incorporated with a capital stock of \$50,000. The directors are R. J. Brown, George A. Eddy and E. Gregory, of Leavenworth, and W. A. Doolittle and Harmon Tarr, of Sabeth, Kas.

Fire has destroyed the drug store of J. M. P. Kasset at Waco, Tex., making a loss of \$3,500, on which there was \$1,000 insurance. G. B. Strale, who was asleep on the second floor of the building when the fire broke out, jumped to the ground and was terribly injured.

An explosion started a fire in the Post Office Block at Uniontown, Mo., January 15. The branch store of the Monroe Drug Company was burned out. The loss is estimated at \$4,500, insurance \$3,000. A small part of the stock and fixtures was saved.

A disastrous fire broke out in Paragould, Ark., January 12, and destroyed, among others, the drug store of J. M. Davis & Sons and the drug store of N. Donaldson. The loss on J. M. Davis & Sons' stock is estimated at \$4,000, and on N. Donaldson's about \$3,000.

F. J. G. Zethraes, a druggist at Paris, Tex., conveyed his stock of goods and fixtures under a deed of trust to Charles F. Thebo, January 15, for the protection of his creditors. His total indebtedness is about \$3,500. The claims against him are all small, not exceeding \$100 each, except the following: W. C. Chisum, \$1,250; Paris Exchange Bank, \$850; Dudley & Moore, \$450.

Arthur A. Winter, a traveling salesman from Muscatine, Ia., was arrested on the eve of his marriage to a Muscatine belle, and the nuptials postponed at the demand of J. T. Dougherty, a druggist, who has secured a judgment of \$750 against the prospective bridegroom. The judgment is the result of a suit for false arrest growing out of an old-time dispute between the men, who were formerly business partners.

M. R. Bruckner, proprietor of the Lion Drug Store, at Paris, Tex., has filed two deeds of trust, the first covering his stock of drugs, liquors, fixtures and all personal belongings in the Clements building, on the north side of the square, and the lease on the same; twenty shares of stock of the value of \$100 each in the Paris Gas and Electric Company, and 250 shares of stock in the Texas Sulphur Mining Company. The other was on a lot 270x394 feet, in Paris. E. B. Baker was named as trustee in both instruments.

In the matter of the application of the Collector and Surveyor of Customs at St. Louis for a review of the decision of the Board of United States General Appraisers as to the rate and amount of duty on certain merchandise imported by the Mallinckrodt Chemical Company, those officials have recently represented to Judge Phillips their wish to make further testimony, and they asked that for that purpose the cause be referred to Wilbur F. Lunt, one of the Board of

United States appraisers, to take depositions as to the facts therein. Judge Phillips granted an order to that effect. At the hearing the government will first offer its testimony and then the Mallinckrodt Chemical Company may introduce testimony in rebuttal. The referee is to report within sixty days. The testimony is to be taken at St. Louis and New York, and wherever else the parties may agree.

Thomas N. Van Natta, of the wholesale drug firm of Van Natta, Lynds & Co., of St. Joseph, Mo., brought suit against Harriman & Co. and Newcomb & Co., of New York, owners of the late People's Street Railway, Electric Light and Power Company, of this city. This company was until recently in the hands of a receiver and is now known as the St. Joseph Light and Traction Company. Some time ago Mr. Van Natta recovered \$7,000 for damages done by one of the defendants' cars to his little boy. When the old company dissolved no provision was made for the payment of his claim and the petition charges James T. Gardner, of New York, John H. Owens, receiver, of this city, and Arlick & Brown, attorneys, of this city, with fraud and collusion. He asks to have set aside the recent proceedings of court whereby these parties were granted compensation, claiming that they retained only a portion of the amount allowed them and charging that they returned the balance to the company for the purpose of defrauding his claim and judgment. An interesting law suit is expected.

Fond du Lac, Wis., druggists have formed an association.

A Rockland, Me., physician 98 years of age has gone into the proprietary medicine business, putting out a cough cure.

Druggists of Oakland, Cal., have gone to cutting prices again to meet the cut in San Francisco.

A new fad among society girls is what is termed the vaccine limp. They would not limp if they were vaccinated on the arm.

The Maryland Pharmaceutical Association will make another decided appeal to the Legislature to pass a pharmacy act for that state.

The Board of Selectmen, Hartford, Ct., want the druggists to establish a uniform price for medicines which are used for treating the poor under the care of the town physician.

The death of Mr. George H. Herrick, which occurred January 10th, will not affect the business of the Herrick Drug Co., Owatonna, Minn., of which he was senior member. The firm announce that the business will go right on, and will, for the present at least, be conducted by Wm. Gansewitz, of Little Falls, Minn.

The Mercer Chemical Co., Omaha, Neb., have succeeded the Mercer-Whitmore Co., Dr. R. T. Whitmore being no longer connected with the concern. On January 18 the new company amended their articles of incorporation, changing the name as above, and now announce to the trade that in future their business will be conducted under the new style.

PITTSBURGH.

Pittsburg, January 24.—The Pittsburg College of Pharmacy deserves credit for the work it is accomplishing. Its supporters are not creating any furious commotion either in educational or business circles hereabouts, but the results are quietly effective. At present the college occupies several rooms in a large block at No. 86 Water street, facing the Monongahela river, but the trustees hope to secure, in the near future, more commodious quarters. They even entertain hopes of putting up a building to be devoted entirely to pharmacy. A. C. Robertson is president and J. A. Koch, Ph. D., dean. Prof. F. T. Aschman, Ph. D., has charge of the departments of organic and inorganic chemistry. Adolph Koenig, M. D., lectures on materia medica. Gustave Guttenberg, A. B., a well-known Pittsburg scientist, teaches microscopy. John A. Shafer, A. H. Poth and J. C. Campbell conduct quizzes and assist the instructors. This year's classes include 30 seniors and 50 juniors. The present session marks the sixteenth annual year for the college. This year the final examinations will be held March 5, 6 and 7.

The Pittsburg Paint and Drug Club, member of the National Association, held its semi-annual banquet Friday evening, January 19, at the Hotel Duquesne. Eighteen guests were present. A fine dinner was served.

The Masonic friends of Dr. Abner S. Bender, of the L. H. Harris Drug Company, gave him a banquet at the Seventh Avenue Hotel a short time ago. It was a royal occasion and thoroughly enjoyed by the hosts and their honored guest.

Burglars broke into the drug store of Wilson & Work, at New Florence, Pa., a short time ago, making twice within a year that the store has been entered. This time the unknown marauders stole about \$15 in cash and a lot of cutlery, tobacco and cigars.

On January 4, James Monroe, a drug clerk of Wellsville, O., committed suicide by taking morphine. The cause is thought to have been despondency at being out of work. He came to this country from Scotland in 1889 and at one time was in the employ of Dr. Dickson, of Penn avenue, this city.

DENVER, COL.

F. J. Lord, who recently purchased the store belonging to T. A. Axtell, has sold it to Maybury & Perry.

L. A. Schoppe, who was wounded by burglars in his store some time ago, has entirely recovered, with only a slight scar to recall his midnight visitor.

The Metropolitan Pharmacy, formerly owned by Dr. Rader, of Durango, has been purchased by Jas. J. Moses, who has for some months past been managing that place.

Mr. Haswell's Fifteenth street store has lately been purchased by Mr. Patterson. This was the original Haswell store. Mr. H. is as yet the proprietor of two, one of which he opened very recently.

Business in and around Denver is increasing with great rapidity, considering the great depression it has gone through, and traveling salesmen, having been through the state, say that business greatly exceeded their expectations. Among business changes are the following:

BOARDS OF PHARMACY.

Colorado Board of Pharmacy examined 19 candidates January 8.

Ohio Board of Pharmacy, on January 9, at Cincinnati, examined 70 applicants for pharmacists' licenses, and 46 for assistants'. Next meeting in April, at Columbus.

South Dakota Board of Pharmacy met at Parker, January 10. The report sent in by the secretary is illegible, hence the result of the examination cannot be stated. Next meeting at Huron, April 4.

The Georgia State Board of Pharmacy will meet at Atlanta February 26. The standard has been raised to 65 per cent necessary to pass. Intending applicants should address Secretary H. R. Slack, La Grange.

Connecticut Board of Pharmacy has granted licenses to George J. Schirch, Windsor Locks; John J. Sullivan, Stamford; R. G. Foster, West Point; Alexander C. Prinz, New Haven; Herbert L. Hayden, New Haven; John C. Colgan, New Haven; Frank L. Palmer, Stamford.

The Minnesota Board of Pharmacy has inaugurated a practical examination in addition to the written answers to questions. Hereafter examinations will take place in the laboratory of the College of Pharmacy, State University. January 16 was the date of the last one. H. P. Barclay, of Stillwater, has been reappointed on the board.

Missouri Board of Pharmacy, at its January meeting, examined 57 candidates and granted certificates to 23, viz.: Frank M. Buch, W. A. Clark, Jas. A. Flippen, Chas. Hahn, N. P. Jensen, H. E. Klosterman, E. O. Kunitz, F. J. Mobbs, Arthur C. Newberger, Jos. B. Over, Arthur W. Paul, G. H. Rathel and O. B. Strub, of St. Louis; Ed Bishop, Point Pleasant; I. L. Grady, Slater; F. H. Roberts, Longwood; H. Rosmer, St. Charles; George A. Sailing, New London; B. B. Tatman, Unionville; A. W. Vesperling, Cape Girardeau; J. Zahorsky, Steelville; R. E. Barnes, of Illinois, and Chas. V. Machew, of Kentucky.

Illinois Board of Pharmacy met at Springfield January 8, and elected officers as follows: President, L. C. Hogan, Chicago; vice-president, A. H. Green, Bloomington; treasurer, L. N. Coffey, Cairo; secretary, Frank Fleury, Springfield. The following day an examination was held, the successful ones being: Charles A. Dresbach, Charles W. Armstrong, Decatur; E. H. Thomas, Argentine, and E. E. Kennedy, Bethany. The following passed as assistant pharmacists: S. Suter, Bloomington; W. G. Williams, Quincy; E. M. Bonnell, Dixon, and H. H. Pinney, Wilmington. The receipts for the year 1937 were \$7,876 and the expenditures were \$7,896.62.

Wisconsin Board of Pharmacy met at Milwaukee, January 17. Of the thirty-nine young men who took the examination, eight received licentiate or first grade certificates, as follows: C. H. Dickenson, Sharon; Frank W. Collier, La Crosse; George S. Roberts, Fox Lake; C. J. Biberlick, D. F. Harbidge, C. O. Zimmer-

man, A. R. Wintzel, Frank Braun, Milwaukee. Fifteen assistants' certificates were awarded, as follows: G. E. Seyforth, J. I. Fairchild, E. D. Regan, F. A. D. De Hardy, C. J. Kaiser, B. A. Weber, Louis Lau, Milwaukee; H. F. Morris, Waukesha; Charles A. Griffman, Manitowoc; F. A. Root, Milton; C. C. Johnson, Wau-pun; J. M. Sattler, Marion; R. E. Chaffee, Janesville; J. W. Walthers, Stoughton; George W. Horn, Mineral Point. Sixteen were rejected. Next meeting at Green Bay, March 21.

Michigan Board of Pharmacy examined a class of 55 at Saginaw, January 9. Forty-four were successful:

Registered Pharmacists—R. S. Armstrong, Chelsea; Geo. W. Beckett, Manistique; F. W. Hamilton, J. M. Freeman, St. Charles; E. T. Jones, Chatham, Ont.; John Murray, Merrill; G. H. McGellivay, Muir; A. A. Schram, Crossville; Geo. Sharar, Alma; C. E. Smith, Saginaw; T. Thomas, Fowlerville; L. P. Vogel, Chelsea; G. T. Kast, E. J. Eastman, O. A. Nichols and O. R. Hintermeyer, Detroit.

Registered Assistant Pharmacists—C. E. Bradshaw, Yale; G. C. Drake, Imlay City; W. H. Eaton, Detroit; G. G. Gardner, North Star; Robert Goodfellow, Clay; Ralph Henderson, Millington; Ella Ernst, Port Huron; J. E. Knapp, G. N. Gankel, J. E. Lanckner, J. F. Martin, W. F. Lount, F. W. Wilhelm, Bay City; L. O. Loveland, Charlotte; H. A. Main, Tekonsha; D. W. Mitchell, Harrisville; E. L. Moore, Melvin; James McGregor, Ann Arbor; G. E. Orth, Ewart; B. Pemberton, Memphis; F. D. Simpson, Flint; B. A. Smith, Portland; L. D. Bates, Burnside; J. W. Browne, Augusta; O. G. Milliken, Silverwood; E. Lauckner, F. Wiese and B. Reimold, Saginaw. Next meeting at Grand Rapids, March 6 and 7.

PHARMACEUTICAL ASSOCIATIONS.

The Norfolk & Portsmouth (Va.) Pharmaceutical Society has elected Dr. A. B. Helstand president.

The Hartford (Ct.) Druggists' Association has elected P. W. Newton, president; C. H. Bell, secretary, and L. H. Goodwin, treasurer.

Monros County (N. Y.) Pharmaceutical Society has been organized with these officers: President, Alvin H. Dewey; vice-president, Louis Wyeth; secretary, A. R. Mandeville; treasurer, J. Jay C. Curtis; executive committee, Messrs. Hewitt, Hyde, Bryan, Nagel, Wyeth and Dewey.

The Milwaukee drug clerks have perfected a temporary organization by the election of officers as follows: President, Arthur C. Block; secretary, Alfred W. Luebke. Committees on membership were appointed, for the East Side, M. Trayser, C. Rogers; West Side, C. A. Henni, A. Melnecke; South Side, H. J. Webber, William Wasweyer. Messrs. C. A. Henni, Max Trayser, W. Wasweyer, Charles Zimmerman and H. J. Webber were instructed to report a constitution and by-laws at the next meeting in Liedertafel hall, January 26. The objects of the association are the establishment and equipment of rooms in which to listen to lectures and papers, attend quizzes, conduct experiments, and pass an occasional social evening with musical and other entertainment.

CORRESPONDENCE.

We accept no responsibility for the views and utterances of our correspondents. Contributions must carry full name and address of the writers, which, however, will not be published, if so requested. Copy should reach us ten days in advance of date of issue.

CANADIAN PHARMACY NOT WHAT IT SHOULD BE.

To the Editor,

I should like to see a time clause of apprenticeship become a more general thing. That is, so an apprentice could not come into one's store to stay a specific time upon agreement, and when good progress had been made, not finish out his time, because some one would pay higher wages for the skill, now useful and which he did not impart. This is a notorious condition to-day, and prevents in some measure turning out well grounded men. You can readily see why. It is as common in Canada as here. As a partial antidote, I would suggest rigid investigation as to causes why such time was not completed, and advise no brother pharmacist to engage the applicant for a new position unless more satisfactory reasons are assigned than that "I could not get along with Mr. So-and-so. He was hard to please," etc.

Doubtless some American pharmacists will consider it their duty to reply to the strictures on the manner most drug stores are conducted here, which were made by Mr. N. H. Martin, of England, and published in your last issue. With the full conviction that he can and will be answered by those many times better qualified than myself to do so, I should like to be allowed to defend myself as a pharmacist who, while not ignoring some of the advantages of college training, is only conducting a pharmacy on the authority of a State Board certificate of examination qualification.

To begin, I was born in Canada and had three years' training in a drug store there, in a town of 2,000 inhabitants. My preceptor (as they are called there) was a graduate of what is considered the best college of pharmacy there, or even on this continent. Many were his boasts of this fact, and right here let me ask why Mr. Martin, who uses the term "American," did not see fit to include Canada in his criticisms? While it is not England, at the same time it is supposed to be modeled in most respects more after that country than this, and in common with the English, the Canadians seldom let slip an opportunity to attack all kinds of educational institutions and methods and results of the educational system in vogue in the United States.

They will tell you fast enough that the standards of pharmacy (and medicine) are so low here that it is no uncommon thing for diplomats for either profession to be bought outright. (These statements are not based on hearsay.)

To resume, if he (Mr. Martin) had seen fit to extend his vision to that delectable field of pharmacy, I think from what I am about to subjoin he would have found enough awry to include Canadian pharmaceutical methods as just subjects for his gentle correction.

Mr. Martin makes much ado out of the heterogeneous lines of goods to be found in the average American pharmacy.

Well, in this Canada drug store the stock consisted of drugs, paints and oils, kerosene, wall paper, cigars, soda water,

candy, musical instruments, toys, albums, optical goods, school books, books on religion, garden and flower seeds, etc., etc.

And this in a town of 2,000 inhabitants and having five (most learned) doctors!

Now, as to results of this most lofty college training in the field of true pharmacy:

There never was an ounce of distilled water in that store while I was there. I have seen many a solution of silver nitrate made there, using pump water as the solvent. Nice, was it not? There never was prepared an ounce of mucilage of acacia the gum, not in granulated form, was hastily and crudely hammered up in a mortar when the true mucilage was called for. Rose water was always made by addition of a quantity (cost being the determining factor as to quality) of so-called triple extract rose to water from the pump.

There never was a percolator on the premises, tincture of opium and the camphorated tincture of opium being invariably bought from the jobber; and all but the simplest tinctures prepared by diluting the corresponding fluid extracts. It was the constant practice in this high-class Anglo-Canadian pharmacy (taking its rank, perhaps, from the Anglo idea) to mix the fluid extract with cherry with syrup made from brown sugar when the splendid preparation of the U. S. P. was called for and intended, etc., etc.

Now, these are facts. That the proprietor of this store could probably tell a serrated leaf from one which was not serrated, and translate a little "pachyderm Latin" prescription phrasing better than many State Board Pharmacy incompetents, I am willing to allow.

But did the public get better service there in the respects enumerated than it gets here?

I think not; and thinking thus, I respectfully submit the question to your honest consideration.

Yours very truly,

A State Board of Pharmacy Man.
Moreland, Ill., January 19.

WINDOW DRESSING—A REPLY.

To the Editor,

Little did I expect, when I sent you a detailed description of my show window, that I would so soon have to rush myself into your valuable columns, but the uncalled for article, or I should say, attack, from the eloquent pen of my brother druggist, J. Wand, of Oklahoma City, OK, forces me to reply. In the first place I should like to know if it is criminal for two men to accidentally conceive or concoct the same plans or to fall upon the same ideas; brother Wand says he has had the same display for the last three years except he has had a chicken yard in lieu of an aquarium or fish pond. Dear reader, is there no difference between a chicken yard and a fish pond with water running from high rocky cliffs, reaching a water wheel below, which runs a millature mill? Even if Mr. Wand had had the same display, identically, as I described in the December 1st issue of the Era, what of it? I said nowhere that there never existed any such display as mine, neither in heaven above nor on earth below. I only gave a description of my window at the solicitation of the Era, and gave it exactly as it was, and closed by saying that I hoped the description would be an idea entirely new to some

druggist, of course this part of my remarks was not directed to Mr. Wand, as he had the idea three long and weary years previous to the writing of my article; he had not succeeded, however, in this long time in having a drug journal to ask from him a "write up" of his display; Brother Wand, if the shoe does not fit, don't wear it." Mr. Wand could have written his little article in very much plainer and much more brotherly language had he made the effort, and not have transformed himself into the traditional or biblical animal which we are told was ridden by Baham of old. I will state for the edification of friend Wand that my window was gotten up by myself and only myself, and as far as I knew was the only one of the kind. I received hints from no one in regard to the matter, not even Mr. Wand himself, strange as it may seem, and I was informed by hundreds, yea, thousands, that they had seen nothing of the kind and a great many of my window admirers were drummers who travel a few miles occasionally. It is useless for Mr. Wand to give references in regard to the truthfulness of his statements, for I firmly believe him, because he is a brother druggist, and I will believe a man implicitly he be a druggist. In conclusion I will ask my readers if they do not think Mr. Wand's letter rather too insinuating and harsh, and if there be any difference between a fish pond and a chicken yard, between fiab and fowl (foul).

Respectfully,

A. J. EMBRE, Belton, Tex.

PERCENTAGE SOLUTIONS—A CORRECTION.

To the Editor:

In your issue of January 1st, 1894, my communication on "Percentage Solutions" has been so altered as to destroy my special claim of mathematical accuracy for the formula. My rule merely formulated in words a simple process in arithmetic, and runs thus:

Multiply the weight (in grains) of a dram of water, by the number of drams of solution required, and this product by the percentage required. Divide this result by one hundred (100), less the percentage required. The quotient will be the number of grains of material to be added to the fluid, in order to make the required percentage solution in the quantity desired.

Take, for example, the following:

Sol. cocaine muriate, 6 fl. drams.

(Sol. 5%.)

Assume one dram of water to weigh 57 grains (a constant quantity). Then, according to the rule:

$$\frac{57 \times 6 \times 5}{100 - 5} = \frac{1710}{95} = 18.$$

Hence, add 18 grains of cocaine muriate to six fluid drams of water, and the desired quantity of the desired strength is made. If the solvent be any other fluid than water, the weight of a dram must be determined by weighing, as in the case of water. You failed, in printing my communication, to give the divisor correctly, that is: 100 less the percentage required. This rule is unvarying. I regret very much to have published over my signature a mathematical untruth, and I trust you will publish this as early as convenient.

Yours very truly,

JOHN F. JUDGE,
Philadelphia, Pa.



A TALK ON VANILLAS.

By Charles E. Hires.

(Continued from page 85, January 15, ERA.)

THE proper time for the Mexican vanilla bean to ripen is in January or February, but such a demand is made for the bean that for several years past the growers have begun to gather the crop in October and November, so that the harvest is over before the time it should have commenced, and this vanilla weighs one pound less to the thousand and remains red and subject to changes. Vanilla, if allowed to ripen naturally, remains black, juicy, and of a silvery hue shortly after its curing, and for many years it can be preserved unchanged, but if cut prematurely it is affected much, as any other fruit naturally is when picked two or three months before the time, and it never looks as it should when this is done. In order to impart to

the bean all the good properties of which it is susceptible it should be cut as it becomes yellow, for, if it be cut all at once, even though it be in the month of January (as was the practice some years ago), the result will be that a great portion of it will remain unripe, because as it blooms in March, April or May this same gradual change continues, everything being equal, until it ripens. There is, besides, another cause which brings about the same difference, even in the case where they blossom together, and that is the greater or less shade afforded by the trees on which the vines grow. In former times, in compliance with an order from the government, the sub-delegates, and after them the civil authorities, were instructed to see that the

unripe fruit should not be cut. When this duty fell to the lot of conscientious and active persons, abuses were in a great measure avoided, but completely satisfactory results were far from being attained on account of the scarcity of the necessary means to watch and pursue smugglers. At other times the office was applied for by indolent persons, who regarded the orders of the government with indifference, and thus the law soon fell into disrepute, and was finally abolished. The difference between the price of the vanilla picked during October and November and that picked after January is in the proportion of three to nine. Those acquainted with this fact, seeing those beans sell for the third what they know by their yearly experience could

be sold for nine because they do not want to wait two or three additional months, might think the sellers foolish, or would imagine that poverty compelled them to suffer this loss, but it is neither the one thing nor the other, because these people are clear-headed and their prosperity so general that it may be said there are no people in the world who live in greater ease than do these people of Papantla, and this is not alone due to the fertility of the soil and the good quality of the products which are obtained through cultivation, but also because in their forests important products grow wild which are the property of any one willing to gather them. The motives actuating these people in selling the vanilla before it is ripe are avarice on the one hand and rascality on the other. The first vanilla sold, has, as a rule, been stolen, and as it is cheap, though of poor quality, it is always a bargain for the buyer. The planters who have vanilla beams somewhat distant from their homes, as soon as they know of any purchase or sale, cut their own beans, fearful lest the same be stolen, as they know by experience, immediately upon the start of such traffic, complaints are heard from the unfortunates, who in a short time are deprived of the results of hard labor and care. The abnormal condition of affairs goes on, and thefts repeatedly occur even in the best guarded vanilla forests, whose owners cannot constantly oversee by day and by night, as other duties require their attention. For this reason they decide to cut and sell the vanilla bean at very low figures, rather than to suffer total loss. For no other reason is the fruit gathered and sold before it is thoroughly ripe. This unseasonable traffic, both immoral and highly prejudicial to the property interests of these cantons, should be

checked by proper legislation; in this way the crop and the quality of the goods would be much greater, and the superior and delicate flavor which justly belongs to the best Mexican vanilla bean would make it esteemed above any other aroma in the world.

In curing vanilla it is an easy matter to impair it either by an excess or lack of dryness, perfect curing is only attained when the bean is left in such a condition that it remains juicy and retains its greatest possible weight, a consummation which the expert should constantly aim at. If the vanilla is cut when ripe, success will be easy, but when cut prematurely, as has been the case during many years, art has to replace nature as far as possible, which can be done only through labor and substantial knowledge of the subject so that some idea may be formed of the delicate care needed for this operation. Suffice it to say that even the best known experts sometimes permit the vanilla to dry too much, or else the greater part of it, not to say all, becomes filled with insects, either before or after the process of curling. It is only necessary to allow it to remain in the sun three or four minutes more or less than is required to bring about one or the other of these results. Great care and fine eyesight are required in the separation of the diseased from the sound, because, if only one bad bean remains undetected it will mold and endanger other bundles in a short time. The curers in Papantla excel in curling and bunching the bundles, and in the regularity and evenness with which they classify the size and quality. As a rule planters do not know how to prepare the bean, so they sell them in an unripe state to curers, who employ experts for that purpose. The beans are brought in by the natives in large and small lots

very similar to the way in which our country people bring in rags, butter and eggs to the town storekeeper. The beans are first put in a sweat box, where they are sweated about 36 hours. They are then placed on mats in the sun if the day is bright and clear, if not they are placed in a large oven to dry. This requires the utmost care and attention, else the beans are easily spoiled. After the excess of moisture is dried out, they are again sweated. This operation is repeated until they are black. They are then placed in the sun, in the middle of the day only, from 11 to 1; they are then put in racks in vanilla rooms, one above the other. While the curling is going on it is necessary to separate them with the utmost care; the discolored from the black bundles, the very small, the impoverished, those with skin woody at intervals, the one with a tough, thick and smooth skin, and also the spotted, cracked or split bean, assorting them in their respective classes. The great care to be exercised in curling vanilla can be appreciated by what I have said before; but it is not amiss to observe that however little it is over dried it is sufficient to reduce the weight almost one pound to the thousand, which would be a great loss, besides the bean that is over-dried loses some of its color and depreciates in value one or two dollars a pound, which amounts to as much as the loss in weight. When the vanilla is thoroughly ripe it is easier to ascertain the required point of curling, and besides it gives less trouble and is not so exposed to changes. It gets silvery white while being cured and in a few months is crystallized, and will be preserved in this way for a number of years. If cut when unripe just the opposite happens, for not only are few crystallized but their keeping quality is poor. After the beans are



DRYING, SORTING AND BUNDLING VANILLAS.

thoroughly cured, which takes from three to four months, they are assorted in different sizes and bundled in bundles containing from 50 to 75 each, the different cures having different amounts for their packing, some 50, some 60, others 70 and some 75 to their bundles. These bundles are all uniform in size, according to length, and are placed in cans of 40 bundles each; then four or five of these cans of different sizes are packed in a case made of Mexican red cedar, which is the most plentiful wood grown here. A curer stated to me that the making of these cases was the most expensive part in putting the bean up, as they have no machinery such as saw mills and planing mills; everything must be done by hand, which necessarily takes some time to make one of these cases, as the corners of each are grooved and dovetailed together, making the same cost when completed from \$2 to \$3.

After the beans are cased the cases are covered with a fiber matting made here by the Mexicans, and they are then ready for shipment. Mules or burros, in some cases mustangs, are drawn up in line and two cases are strapped on the back of each animal, and started for the sea coast in caravans of perhaps eight or ten animals with two or three men for attendants; then shipped on steamers for Europe and the United States. The authorities for some time have been endeavoring to get a railroad to Papantla, but as yet have been unsuccessful. The Aztecs or native Indians do not want to have any improvements. Several attempts have been made to survey a road, and I was advised of a civil engineer, sent to survey a route, who next day after his arrival was found hanging to one of the trees outside of the town. The natives do not want anything different from what they have been used to, and will sacrifice their lives in defense of what they consider their rights.

I returned to America with a conviction that notwithstanding our national character of penetrating to the utmost corners of the earth, as a people we know little or nothing of Mexico, a great, broad, rich, fertile land, magnificently endowed by nature and so favored as regards soil, climate and physical conditions, that in my judgment it is ere long to become the most prolific source of supplies for many of the essential and valuable products needed by the world, and of her varied and valuable industries none are more promising and give indications of more important growth than does the vanilla bean. The infusion of greater intelligence in the minds of the natives engaged in its development, the employment of better means for its preservation and cultivation, the opening of newer and larger districts for its supply, and a more intimate and scientific knowledge of its natural requisites, would in a few years multiply manifold the volume of this commerce, and would permit the product to be placed upon our market and the markets of the world in a far better condition as respects quality, and at a price that would largely stimulate its use. I returned to Philadelphia satisfied that my expedition had been of great practical value to me, and that if more merchants and business men, deeply interested in handling and marketing vanillas, had been induced to turn their interests and attention to the conditions and restrictions that surround

the production, many of the difficulties and hazards that retard its cultivation and make its production so precarious and mar its perfections, and so materially increase the cost of transportation, would in a few years be materially overcome.

I now look at the vanilla bean with a new interest. I see in it something of the history of a peculiar people. Its delicate aroma is to me suggestive of the bright blue sky, the blazing sun, the tropical luxury, and the rich atmosphere of the country where it grows—almost the spontaneous child of nature, yet so potential and useful in the varied needs of our complicated life of to-day.

I trust that the brief and hurried view of its habits and peculiarities that I have been able to give you in this brief talk have been of some interest and value from a scientific standpoint and may have tended to render more accurate and definite your botanic knowledge of the vanilla plant, and may have cleared away some of the uncertainties that have in the past clouded its history.

During 1893 the United States exported cotton-seed oil to forty-two different foreign countries, the amount of such exports reaching nearly 9,500,000 gallons, valued at \$4,000,000. This is a slight decrease over the previous year, but this is thought to be due more to peculiar conditions of trade rather than want of demand for the oil, as its use in the West Indies and South America is rapidly supplanting that of olive oil for culinary purposes. There are no available means of determining how much of our exported oil comes back to us as pure (?) olive oil, and the fact that our imports of olive oil for 1893 are in excess of those of 1892, while as before stated our exports of cotton-seed oil are less, makes the matter rather confusing even when a guess is attempted in the matter of adulteration. We exported to France 1,265,708 gallons, valued at \$450,036, over 5,000 gallons were sent to Spain, and 462,244 gallons, valued at \$166,490 were sent to Italy. Nearly two-fifths of our export were sent to Holland, which took 3,736,155 gallons, valued at \$1,588,000. It is used in this latter country to a great extent in the adulteration of butter, which is exported to India and Central and South America. Germany took 1,075,945 gallons; England, 761,884; Austria, 276,850; Mexico, 671,009; Brazil, 304,155; British West Indies, 130,131; French West Indies, 124,890; Cuba, 62,498, and Africa and Australia, 20,379.

Among recent receipts of rubber by a Panama steamer was one consignment stated as "Five Zerosons." A zeroon is a cow's hide, and to sew a commodity up in it is to provide a very safe means of transportation. It will not break or split, and the fastenings are of leather thongs. Being pliable, it makes the burden easy upon the back of the mule, by which mode of transportation the bulk of rubber finding its way to export on the west coast of South America is transported. Hides are cheap in that section of the world; still the envelopes can be utilized here after their contents have been removed. Zerosons are used considerably for indigo, but seldom for rubber; in this case the hide was perhaps the only available article.

PROPOSED INTERNAL REVENUE TAX ON ALCOHOL.

Under present regulations the internal revenue tax on spirits has been 90 cents per proof gallon, equivalent to about \$1.70 per gallon of 94 per cent alcohol.

The customs duty is \$2.50 per proof gallon, equal to \$4.70 per gallon on 94 per cent alcohol.

The wide range between \$1.70 and \$4.70, representing the internal revenue and the customs tax respectively, has permitted the great whiskey monopoly, commonly called the Trust, to manipulate its prices at will, and at one time there seemed to be nothing to prevent even a doubling of the price of alcohol.

The Wilson tariff bill proposes a duty of \$1.80 per proof gallon, or about \$3.38 per gallon on 94 per cent alcohol.

The proposed internal revenue tax is \$1 per proof gallon, equal to \$1.88 per gallon of 94 per cent alcohol.

It is easy to see from these figures that, if both measures are passed, the Trust will not have such a wide margin for activity as regards price raising as it has heretofore enjoyed, even were there no other factors in the way of opposition to be encountered.

TWO DECISIONS.

Agreements to prevent competition in trade are, in contemplation of law, injurious to trade, because they are liable to be injuriously used. If a combination between independent dealers, to prevent competition between themselves in the sale of an article of prime necessity, is, in legal contemplation, an act criminal to trade or commerce, whatever may be done under and in pursuance of it, is illegal, although the object of the combination is merely the due protection of the parties to it against ruinous rivalry, and an attempt is made to charge undue or excessive charges, the parties to the combination are amenable to the law. *People vs. Sheldon et al.*, 54 N. Y. S. Rep., 513.

Any dealer or associated dealers have a right to refuse to sell or buy from any particular dealer. That is an incontrovertible rule of law in its general expression. There may be a right to fix prices, and crush out competition in a legitimate effort to do that, and nothing more. But if the combination is unlawful, then the parties to it commit a misdemeanor and an offence against the State; and if, as the result of such unlawful combination and misdemeanor, a private person receives a private injury, that gives such person a right to private action. By the statutes of this State, it is a misdemeanor to commit any act injurious to trade or commerce, and to combine to create a monopoly and to ruin all who will not unite in such undertaking, is injurious to trade and commerce and a violation of law. *Dueber Watchcase Manufacturing Company vs. E. Howard Watch and Clock Company*, Supreme Court of New York, 24 N. Y. Supp., 647.

"Have you any faith in patent medicines?" asked the man who never feels well.

"I should say I have," replied the man who hustles. "Quickest means in the world for getting rich."

TRADE COMMENT.

DRUGGISTS SUPPLEMENTS.

The third (1891) edition of the Era Druggists Directory has now been issued, and we shall begin the regular publication of the "Supplements" to this new edition in this (February 1st) issue of The Pharmaceutical Era. We solicit from our readers information regarding any changes among the drug stores in their locality, such as new stores, removals, sales, failures, deaths, etc., etc. Address

D. O. HAYNES & CO., Publishers,
DETROIT, MICH.

Indexes on first four red sheets.

Butter was anciently known as "oil of milk."

Several English chambers of commerce have begun an agitation in advocacy of a decimal system of coinage.

The patent medicine business of the late Ross Gordon, Lafayette, Ind., will be continued as formerly by W. R. Gordon.

The Columbia Chemical Co., of New York, have removed their offices and warehouses to 174 G street, N. W., Washington, D. C.

It costs 32 cents a box freight to bring lemons from Sicily to New York, and 50 cents to carry lemons from Florida to New York.

Artificial wood for furniture, roofs, insulators, etc., is now made by burning magnesite together with wood, shavings, cotton, hair or wool.

The La Ville Laboratory Co., Springfield, Ohio, has been incorporated, and will manufacture and place on the market Elixir Rheumatique.

The firm of D. W. Gross & Son, wholesale druggists, Harrisburg, Pa., was dissolved January 1st. The business will be conducted hereafter by E. Z. Gross.

An immense water power plant is being erected in Sweden for the electrical production of chlorate of potash, to be used in the manufacture of friction matches.

Stlvetts—"The German investigators are experts in bacillus hunting, aren't they?"
Whiffet—"Well, wouldn't you naturally expect a germ-man to cholera microbe?"

The Huron Remedy Co., Adrian, Mich., is a new concern which will manufacture a line of proprietary preparations, including Huron Tonic, Lewis' Cough Syrup, and others.

When his wife discovered a bottle of it in his coat-tail pocket he said it was ozodent. She said it was all right, "ozodent take too much of it."—Boston Courier.

Cologne water, which has heretofore been regarded as an agreeable toilet preparation, has been brought to the front by a French practitioner as a remedy for cold in the head. It is used by inhalation.

In a recent report, J. Sterling Morton, Secretary of Agriculture, recommends that whenever food preservatives are used in the preparation of canned goods, the fact should be stated on the can, leaving the responsibility of consumption to rest upon the purchaser.

A single match requires only 1-200 to 1-100 of a grain of phosphorus, yet the consumption of matches is so large that in Europe alone 1,200 tons of phosphorus are necessary to supply match makers.

The Treasury Department has ordered that statistics upon the export of oil cake shall be divided hereafter into two classes—those of linseed and those of cottonseed.

The English Inland Revenue Department has lately issued an order that hereafter the rebate on tinctures exported shall be determined by weight instead of measure of the tinctures as heretofore.

The numerous post-office robberies which have occurred recently have revived the idea that postage stamps should be numbered the same as treasury notes, so that they may be traced and identified.

The commissioner of patents has recently inaugurated the practice of publishing each day a list of patents which expire on that day. This method of imparting important information will undoubtedly be appreciated.

The Chicago Tribune estimates sums stolen and embezzled during 1893 at \$19,329,692, an increase of 100 per cent over 1892. Donations to charities, education and art in sums of \$10,000 and over, amounted to \$33,319,866, an increase of \$5,000,000 over 1892.

Lead poisoning may be prevented to a great extent by those who handle white lead by washing frequently in a decoction of oak bark and by taking care to rinse out the mouth before eating. Milk should be drunk frequently, but intoxicants should be left alone.

A successful attempt was made lately to transplant some of the finest varieties of cacao from Trinidad to Nicaragua. The seeds soon lose their vitality, and in this instance they were planted in glass covered boxes and allowed to germinate during the voyage.

Onyx, which has of late years come into vogue in the construction of soda fountains, has been discovered in Arizona. It is estimated that the quarries in that territory contain 4,500,000 cubic feet of merchantable onyx of the finest quality.

The design of the World's Fair medal which was recently submitted is meeting with a great deal of unfavorable criticism. A prominent congressman claims that it may be debarred from transmission through the mails on the grounds of indecency.

Senna and rhubarb, after being administered to a patient, are found to so distinctly modify the urine that it will give the various reactions for sugar, giving the bismuth test, reducing Knapp's and Nylander's solutions, and decolorizing Fehling's solution.

Prof. Harrington, chief of the Weather Bureau, has been directed by the Secretary of Agriculture to inaugurate some plan for the collection of reliable data relative to sanitary affairs, especially the relations which may exist between climatic and atmospheric conditions and the prevalence of epidemic or contagious diseases such as the "grip," diphtheria, etc.

The Globe Brewing Co., 626-632 W. 30th st., New York City, has bought the plant and business of the Ale and Beef Co. All orders for Ale and Beef Poptonized will hereafter be filled by them.

The firm of Wolfson & Stern, New Orleans, La., has been dissolved and the business is continued by H. G. Stern. This firm does a general jobbing business in druggists' sundries throughout the south, and are local agents for A. M. Tenney's fine confectionery.

It is reported that vaccination matinees are quite the fashion in Paris. The invitations bear the words "On Vaccinera," and persons belonging to fashionable society co-operate in arranging for the presence of a doctor and a cow at an afternoon tea. The company are all vaccinated from the cow.

Chapman & Rodgers, 510 Arch street, Philadelphia, are a new firm organized to engage in the manufacture of perfumes. Mr. Rodgers has long been a salesman with Schandlen & Lind, and Mr. Chapman brings to the firm a large experience in chemical and analytical work.

Recent German experiments on the action of filters show that under ordinary conditions the bacilli of typhoid are unable to pass through them. They can pass only when enough nutriment is contained in the water to allow them to grow in the porous substance of the filter itself, and this is not ordinarily the case.

One of the worst blows American chewing gum has been called upon to suffer, says a Chicago newspaper, comes from an exasperated Englishman who chewed a stick of it for two hours and then threw it away with the remark that he "couldn't masticate the blowed stuff to the swallowing point."

The Treasury Department has ruled that a drawback will be allowed upon imported glycerine which has been used in the dynamite and nitroglycerine exported from this country. The quantity of such glycerine is determined by allowing 4.4 pounds for each 100 pounds of nitroglycerine contained in the exported article.

A company has leased the Aldabra Islands, near the Seychelles, in the Indian Ocean, and intends to preserve and can turtle oil for shipment to Europe. The oil is claimed to possess medicinal qualities similar to cod liver oil, and the promoters of the enterprise hope to supply the latter to some extent in the European markets.

In commenting upon the establishment of a new medical journal as the organ of the colored medical profession of America, the Medical Mirror asks if we may not expect similar publications for the blondes and brunettes of the profession, and even goes so far as to suggest "The Redheaded Medical Journal of America."

The United States now possess the deepest metal-mine in the world, Shaft 3 of the Tamarack Copper Company, of Michigan, having reached a depth of 3,700 feet. There is only one deeper shaft in existence—that of a coal mine in Belgium, which is 3,900 feet deep; but as the Tamarack shaft is pushing downward at the rate of 75 feet a month, the Belgian mine will probably soon be distanced.

MR. INGRAM ON THE TARIFF.

The importance of the proposed tariff reconstruction, as it concerns business enterprises, led the Era to request from Frederick F. Ingram, of Detroit, an expression of his opinions, and these he succinctly sets forth below:

As business men, we are all interested in the tariff, in so far, at least, as the tariff affects our business. What I will say will be only from a business standpoint.

I believe the effects of the tariff changes as proposed in the Wilson bill are greatly exaggerated both by its friends and its foes. It will not prove the panacea foretold by the former; neither can it work the destruction to our industries predicted by the latter.

The most noticeable feature observed in comparing the proposed bill with the McKinley bill and the tariff bill immediately preceding it, is its remarkable likeness to the last mentioned, the tariff bill of 1883.

The unprejudiced observer might reasonably conclude it is the offspring, the legitimate child, of that bill, under which the country so prospered; for, taking the free raw material into consideration, the protection afforded the manufacturer under the Wilson bill is as great as that afforded under the tariff of 1883.

During the campaign that resulted in the election of the present government at Washington the country was divided into two great opposing camps—protection and free trade. Though the exponents of the latter principle triumphed, the Wilson bill, the result of their victory, is not a free trade bill.

No free trader can point to this bill as representative of his theories.

It is also repudiated by the protectionists.

It represents the views of no party that was a candidate for the suffrages of the people during that campaign.

It is, in fact, a compromise.

No doubt it is as strongly free trade as was possible, as strongly protection as was possible, and still pass in the present congress.

To the free trader it is a step in the right direction; it gives, or intends to give, the manufacturer the benefit of free raw material.

If the theory of the free trader is correct, this will benefit the manufacturer, enabling him to compete in price with his foreign rival, enlarging his market and increasing his output.

It will also give greater opportunities to labor by making a greater demand for labor.

The free trader finds satisfaction in believing that this result, sure to follow the passage of the bill, will popularize a low tariff and will lead to still further reductions, until we are finally landed on a solid and impregnable free trade basis, when the tariff will cease to be a political question, the rates will not be changed by every congress and manufacturers and other business men will not be haunted by fears of impending ruin through tariff tinkering, certainly a desideratum devoutly to be wished.

The protectionist also finds reason for composure when viewing the Wilson bill. The period from 1883 to 1890 was a more prosperous period than the three years following, and as prosperous as any period of equal length preceding it since the civil war.

From a protectionist's standpoint, the Wilson bill is at least as satisfactory as that of 1883 to the manufacturer.

During the campaign of 1890 the protectionists were not fighting for higher duties, but for a retention of the duties then prevailing.

They were satisfied with the duties as they then were, and fought for their retention.

Flushed with victory, they took more than they asked for, and, by increasing the rates through the passage of the McKinley bill, caused a revulsion of feeling, leading to the election of the present congress.

It is needless to refer to the charges and countercharges made by the Republican and Democratic politicians, whether it was the McKinley bill, the over-protection caused and the increased burden of taxation imposed by it, or the fear of the Wilson bill that has caused the panic and depression in business that has prevailed the past year.

Probably both are responsible, in a measure, and neither is entirely to blame.

In many lines of goods we can now compete successfully with the foreign manufacturer, though handicapped by a heavy duty on raw material. Relieved of that burden, as we will be by the Wilson bill, we should drive the foreigners out of the market.

Congressman Grosvenor, a high protectionist, in the course of a speech on the Wilson bill January 13, furnished an object lesson in reply to Mr. Stimpson's oration of the day before in illustration of what protection had done for the country. He called attention to the suit of clothes which he wore, which, he said, he had purchased yesterday afternoon for \$10.80. It was guaranteed, he said, to be all wool.

He exhibited, in contrast, a suit he had purchased in England, for which he paid \$16.50, which, in material and workmanship, was inferior to the American suit. The exhibition caused great amusement.

If the American manufacturer of woollens can undersell the English manufacturer in his own market by 40 per cent, paying, as he does, the enormous present specific duty on wool, his raw material, what show will the British manufacturer have when the American is given an even chance with him?

So far as the drug trade is concerned, I believe the Wilson bill will prove a benefit.

Foreign patent medicines are taxed out of the country, as they should be.

If domestic patent medicines suffered a like fate, it is a question if the drug trade, on the whole, would not be benefited.

The duty on alcohol has been reduced to \$1.80, which will prevent the trust from practicing further impositions on the trade.

Most crude drugs have been placed on the free list.

The duty on bottles is reduced one-half.

The duty on chemicals has been lowered. It is still sufficiently high to afford the American manufacturer sufficient protection.

Owing to what I believe was an oversight on the part of the committee on ways and means, the present rate on flower pomades, the perfumers' raw material, was retained, while the rate on finished perfumes was reduced one-half.

Should this remain unchanged and the bill pass in its present shape, the perfume industry would certainly suffer.

This is such a palpable mistake that it will surely be corrected.

All the perfumer has a right to ask and all he wants is free raw material, or the retention of the present duty on finished alcoholic perfume.

As for ourselves, our shipments are a trifle less than a year ago. We have, however, laid off no employes and will not, and are running full time.

We are conducting our business on the basis that any change will be for the better, and are accumulating a finished stock that will enable us to take advantage of the business boom that is sure to accompany the "better times a'coming" that I believe are near at hand.

What we should all do now is to quit talking and go to work. It is continual agitation and discussion that is hurting us.

The country has been talked into a fit of sickness.

Be we Republicans or Democrats, to enforce our argument regarding the tariff we must refer to the hard times; this makes hard times. Let congress pass the bill in whatever shape it finally assumes and go home.

In this broad land of unlimited resources, with its seas and its mountains, its forests and prairies teeming with natural wealth, peopled as it is with the most energetic and thrifty and intelligent race on earth, we are not dependent on favors from Washington.

All we need ask from there is to be let alone. Let them pass the Wilson bill and guarantee they will not disturb business again by changing the tariff for ten years, and the Yankee will, commercially, conquer the world; and we can say, in the words of a patriotic Englishman, substituting "American" for "Briton" "From east to west, Atlantis to Cathay, The noble Briton airs his sovereign sway, Northward and southward, wherever man can live.

He does, beyond, his missionaries thrive;
Further, his bones are found; past them, his fossil;
Beyond them all his advertisers jostle. Each rocky desert, unfrequented space. Bears some memento of this hardy race. Sahara knows its soap, Slam its saucers, Congo its liver ailments and their causes. Where'er we go we find some record written.

Nature was made to advertise the Briton."

FREDERICK F. INGRAM.

Detroit, Mich., January 17, 1894.

Long before yacht racing was thought of as a sport, the American sloop was famous, says Outing for December. In 1783 a sloop of only forty tons sailed from Boston, bound on a voyage to Canton, laden with a cargo of American ginseng root, then, as now, highly esteemed by the Chinese as a medicine. Touching at the Cape of Good Hope for provisions, her commander, Captain Hallett, found a number of English ships homeward bound from Canton. The English captains, fearing the entering wedge of American rivalry in this enterprise—for this was the first American vessel to engage in the trade—bought out Captain Hallett's cargo of ginseng, giving him two pounds of fine tea for each pound of the root. This made it quite profitable for the Bostonian. But the little scheme by no means prevented our countrymen from seeking commerce in the Orient.

NEW SCHOOL ADVERTISING FOR DRUGGISTS.

Attractive advertising has reached such a point of development during late years that the fortunate possessor of a faculty for designing such means of drawing trade has a distinct advantage over his less favored competitor. This new idea, we might call it "fad," has been industriously fostered by a large and increasing number of bright minds, who diligently set themselves to work to find out what people liked to look at in a typographical way, and after determining the question to a degree of certainty, quite as industriously set themselves to the task of satisfying this latent demand. This demand, however, like all others which have a solid foundation in good taste and propriety, is one not easily satisfied; the public is mightily pleased with the effort of to-day and applauds without stint, but it asks for something better to-morrow. In agitating the question of art and taste in advertising the originators of the idea certainly builded better than they knew. Their creation of a demand which gives rise to other demands was possibly beyond contemplation at the start, but there is no trouble in summing up the result, which has been to interest the public in the reading of advertisements and to give employment to a great number of people who now devote their energies to the writing of advertisements. The statement relative to interesting the public in the reading of advertisements is made advisedly. The people do read them, and the modern advertiser is now furnishing them something worth reading. The intrinsic value of the goods advertised is often questionable, but the

A B C

We are not teaching the alphabet, only trying to attract your attention to our large stock of

**School Books,
Slates,
Tablets,
Etc.**

We are now located next door to the Post Office.

**GEO. SCHOELL & SON,
Druggists,
Belle Plaine, Minn.**

fineness and literary strategy displayed by the skilled writer are of a character that attracts attention, and the public quite unconsciously adds this skill in the display of words to the goods themselves, and it goes further than is often

suspected in enhancing the doubtful question of "a bargain."

It has been discovered, not very long ago, either, that the public was tired of fine print advertisements, and only read them in sheer desperation after all other available reading matter was exhausted. It was observed that people got tired of seeing the same advertisement over and over again, and that the stereotyped statements which merchants were wont to make regarding their business were, after a certain length of time, treated with the indifference which they deserved. Some bright genius, after hearing the statement several thousand times from several thousand people that they "merely glanced over the advertisements," took the term "glance" as his watchword and began to construct advertising matter that just suited the "glancers." He constructed headlines and footlines that could be read at a glance. He resurrected the idea that brevity was the soul of wit and took one idea or article at a time, and exploited it in such a manner that it could all be taken in at a glance. The new departure attracted attention, and now we venture to say that the advertising columns of every average bright publication are read with interest and appreciation. The public has set its seal of approval upon the new style and expects and looks for something new and bright every time they scan the advertising pages. All branches of trade now recognize the existence of these new ideas, and the preparation of copy for the advertisement in the "next issue" is one which now calls for considerable study and invention and its final appearance involves as much solicitude and anxious inquiry as that which perplexes the average woman in satisfying herself that her hat is on straight. The canons of the new school of advertising may be very briefly stated. They include brevity, the consideration of one thing at a time, and the employment of the best and the best only of typographical art in dressing words and ideas for public inspection.

The first point, which is brevity, should be uppermost in the mind of every writer of advertising. There is a too evident disposition to say too much; too much of a disposition to crowd in as much as possible under the impression that as the space is paid for, it should be fully occupied. But the people will not read it. They much prefer a good white background for a few well-chosen words in plain black type. They do not have to strain themselves to read such advertising. Then there is the question of one thing at a time. People are always suspicious of hash, and the "olla podrida" style of advertising does not meet with favor at present, unless it is spread out so that the ingredients can be plainly identified. People do not care for an advertisement in the dead of winter that includes a standing reference to last summer's soda water, sunburn lotion or paints and varnishes, but will stop and look at one which refers to cough mixtures and chill-bain removers. Seasonable goods and one thing at a time is the motto for the present, and no business man on earth has a better opportunity for following out this idea than the retail druggist. Taste and skill in the setting up of an advertisement are another important consideration. This is largely within the province of the printer, but the advertiser can

do one thing to facilitate matters, and that is to insist that his advertisement shall be set in an attractive manner. As illustrations of some of the ideas referred to, two advertisements contributed by one of the Era's readers, are repro-

Window Glass

The approaching cold weather reminds you that there are several window panes broken in the house. We have a large stock of glass in all sizes. A tape measure is

Given Away

by us to enable you to measure the sizes. Call and get one.

**GEO. SCHOELL & SON
Druggists,
Belle Plaine, Minn.**

duced here. They are both designed to attract attention—and they do. They deal with but one subject and they are set in a fairly attractive manner.

The retail druggist will find that the road to attractive advertising is not beset with as many difficulties as he possibly supposes. The printing fraternity is becoming alive to the possibilities and necessities of the situation. The average printer or newspaper publisher, and this includes many of the small country papers is now served by a number of bright and enterprising trade papers, which are doing effective work in educating their readers up to a higher standard for the mechanical and artistic features of their publications. Many publishers are alive to the importance of having their advertising columns set attractively. They have struggled ineffectually for years in trying to make good reading matter appear "spicy" when set side by side with old black faced "ads" with moss and whiskers on them, that persisted like parrots in repeating over and over words that had long since lost their meaning or relevancy. The printer has expressed a willingness to reform—the druggist should help him.

The president of the Missouri State Pharmaceutical Association says: "Take as many pharmaceutical journals as you can pay for and take the best. It is a paying investment provided you keep posted as to their contents. A single number may contain one item which will pay for the journal for several years."

For four years Raymond & Co. have had in the Era a standing offer to retail druggists. All who have "kept posted" and taken advantage of the offer have made money. One druggist has made over \$200 on Raymond's Pectoral Plasters in the last two years. It does not cost much to "keep posted," and it pays. Why haven't you kept posted?

HOLLAND GIN.

The records of the past give us no definite information as to the original discovery or first manufacture of the liquor which is now known the world over by the name of "gin." At the time of the invasion of the Low Countries by Charles V., gin was an important product of Holland. Its antiquity is also verified by the records of those who have met that relic of the past, "The Flying Dutchman," whose crew are always described as indulging in potations of "schnapps."

The introduction of gin into the new world was doubtless coincident with the arrival of Hendrik Hudson at Nieuw Amsterdam (as he named it). The kegs of liquor which Rip Van Winkle was obliged to carry up the mountain for the detection of Hudson and his ghostly crew was a part of the first importation to this country.

It is more than probable that the ancient disciples of Esculapius who, in the middle ages, and before, paid great attention to the use of herbs in medicinal preparations, early discovered the properties which were contained in the juniper berry, and, by steeping the berries in spirits, made a crude extract, afterward improving the manufacture into one of distillation.

Gin owes its medicinal properties, characteristic flavor and name to the juniper berry, usually a shrub from two to six feet high, but which, in favorable localities, as in northern Italy, attains a height of twenty-five feet.

The fruit of the juniper contains, before ripening, an essential oil—the oil of juniper. At the full maturity of the fruit this oil changes to a true turpentine, so that, to obtain the juniper oil, the fresh green fruit must be used.

The name "gin" is derived from the juniper through the French "Genievre" (meaning juniper), corrupted into "Geneva," and in Holland "Jenever." From the city of Schiedam, which is almost wholly devoted to the manufacture of gin, comes the designation "Schiedam Schnapps" (Schiedam spirits).

The manufacture of gin in Holland being one of almost national importance, the term "Hollands" is often used to designate the article. That the term is not unjustifiable is shown by the fact that in one year the spirits distilled amount to over ten million gallons, the grain and malt mills supplying fifty-three million pounds of rye meal and forty-seven million pounds of malt; yet the Dutch are not an intemperate people, the larger part of the manufacture being exported to foreign countries.

Each distiller of the finer grades of gin claims to have his own secret ingredients or process of manufacture not known outside of the distillery, and by which he is enabled to produce a finer quality, or better-flavored article, than his rivals. While this is in a few cases true, care in the manufacture, cleanliness in the details, and the selection of the best, both of spirits and juniper berries, is the "secret" which not all of them have yet learned.

While varying somewhat in details, the process of manufacture is as follows: A mash is prepared consisting of one part of malted "bere" or "bigg" and two parts of rye meal, with four parts of water at a temperature of 162 degrees Fahr. After infusion, a proportion of cold water is added, and when the heat is reduced to

about 80 degrees Fahr. the whole is run into the fermenting vat, to which about one-half gallon of yeast is added. Fermentation speedily ensues, and in about two days the attenuation is complete, although at this stage nearly one-third of the saccharine matter in the liquor is undecomposed. The special features of the fermentation are the small proportion of yeast employed and the imperfect attenuation of the worts. The wash so obtained is distilled, and the resulting low wine is redistilled with the addition of juniper berries and a little salt; sometimes hops are added in the final distillation. The final product is run off into large underground cisterns lined with porcelain tiles, where it can be kept indefinitely without obtaining color. It is drawn off as required into casks which have been previously treated to avoid coloring the contents.

Dutch gins vary much, one from the other, but generally they are much purer and mellow than the more highly flavored and frequently adulterated British gins.

Ferd Rutmann & Son, of New York, are probably as well posted upon Holland gins as any firm in this country, and in a recent article in Bonfort's they say that there is much variation in the ingredients employed, and cardamoms, cassia, or cinnamon are often used in flavoring. An article called gin is prepared by mixing spirits with certain proportions of the essential oil of juniper without redistillation, and a great deal of inferior liquor is made with oil of turpentine and aromatic substances, the juniper berry not entering into the composition.

To give some idea of the extent to which adulterants are used to produce liquors which are sold under the name of gin, the following substances have been found in them by chemical analysis: Alum, carbonate of potash, oils of juniper, cassia, nutmeg, lemon, sweet fennel, caraway, coriander seeds, cardamoms, capicum, creosote and even sulphuric acid.

To prevent cloudiness and turbidity, which inferior and adulterated gins would show when mixed with water, alum, carbonate of potash, acetate of lead, and sulphate of zinc are added. To give an artificial pungency and mellowness, grains of paradise and cayenne pepper are used, and the absence of spirit covered by sugar.

Very few distillers of gin now manufacture directly from the grain, but obtain the moutwijn from the numerous distillers of that article, the price being quoted from day to day on the Exchange, varying according to supply or demand; a few use, instead of moutwijn, a spirit manufactured from potatoes, and called "potato spirits."

Until recently the manufacture of gin has been confined to Holland and England, but of late years its manufacture has been introduced into the United States. While many American distillers claim to produce a purer, finer, and better grade of gin than any imported, they have as yet failed to produce, even by means of the "Holland process," an article equal to that obtained by the patient Dutchman with the results of years of experience and improvement—slow but sure.

Remember that all the indexes for this issue will be found upon first four red sheets.



S. M. CROMBIE.

This "person" followed the advice and notable example of Garfield and General Grant, and was "born on a farm," and many of his friends still declare that an excellent "granger" was lost to the country the day that Mr. Crombie drifted from the Oakland County farm to Ypsilanti, Mich. But such is life in the far west. Believing that the three "I's," Industry, Integrity and Intelligence, would have some bearing on his future success in life, this horny-handed son of toil entered the Michigan State Normal School at Ypsilanti, for a four years' course, and having finished the work at this point, took up the study of pharmacy in Michigan University at Ann Arbor. For a short time after graduation Mr. Crombie labored in the laboratory of Chas. Wright & Co., moving later from Detroit to Chicago, taking a position in the city order department of Humiston, Keeling & Co., wholesale druggists. Leaving the employ of the latter firm, he next accepted an offer from the Rumford Chemical Works, for a short time in the office, and later on as a traveling salesman, and after two and one-half years' service, resigned on January 1, 1888, to represent Eli Lilly & Co. as salesman through Kansas and Missouri, with whom he has been associated during the last five years, the greater part of the time in Wisconsin and Minnesota, with headquarters in Milwaukee.

Although it may be true that the "rolling stone gathers no moss," Mr. C. resigned his position with Messrs. Eli Lilly & Co. in December, and in future will call on the trade of middle and northern Michigan, Wisconsin and Minnesota, working on a brokerage basis. In addition to one or two other accounts, the former apostle of "Eli" will handle the products of Messrs. French, Cave & Co., of Philadelphia, whose goods are fast coming to the front, and will aim to add somewhat to the sales of their celebrated "Sweet Chimes Perfume" in 1888.

Mr. Crombie's leading characteristic is modesty; and being a devoted follower of "Izaak Walton," and a "Mighty Nimrod," he has even a few "fish" lies left, and his reputation in this "line" has long ago preceded him in the land where the thump of the mortar and pestle makes merry music for the ear of the northwestern retail drug man.

Paper can be made of over 50 kinds of bark, over 100 kinds of grass, banana skins, bean stalks, pea vines, cocoon fiber, hay, straw, sea weeds, hair, fur, wool, asbestos, leaves, husks, moss, sawdust, shavings, stistles, tobacco stalks and tan bark. There are over 2,000 patents in this country covering the manufacture of paper.

TRADE NOTES.

EASTER DYES.

These may be obtained of the following firms, all of whom have advertisements in this issue:

O. A. OHL, Tiffin, Ohio.
PAAS DYE CO., Newark, N. J.

Special attention is directed to what is believed to be a decided improvement in the Index of Goods which was inaugurated in the issue of January 1st. It is believed that the readers of the Era can now, by turning to pages 21 and 23, on the first red sheets in each issue, easily find any article in which they may be interested.

The Marshall Medicine Co., of Kansas City, Mo., has been organized with a paid up capital of \$100,000.

The Boston Petty Ledger, manufactured by A. G. Moore & Co., 47-49 Court street, Boston, is a handy arrangement for keeping accounts with a minimum of expense and labor and its simplicity recommends it at first sight. Over 25,000 have been sold, which fact is certainly an indication of its merit. Write for circular and sample pages and mention the Era.

Owing to the increase in their business the firm of Frederick F. Ingram & Co., of Detroit, have recently removed their Chicago branch into larger and more convenient quarters at 110 Randolph street, third floor, with John Block Drug Co., Telephone Main 4165. Mr. E. Frank Baker is in charge of the Chicago branch, and has a complete line of Wing's perfumes to show to the trade.

The best and cheapest is what every druggist is looking for when he purchases corks. The R. W. McCreedy Cork Co., 47 Illinois street, Chicago, claim that these terms are synonymous and that their trade mark "Diamond M" is a synonym for both terms. They invite the drug trade to test their assertions by testing their corks, and the proper way to do this is to qualify the next order for corks by quoting "Diamond M" in connection with it.

There is no man in the drug business who could not find dozens of uses for a four-line self-inking rubber stamp, if he had one. When such an article is given away, the enterprising druggist should be on the lookout. He should carefully consider the offer of Geo. W. Holloway, 87 N. Salina street, Syracuse, who sends free such an article with druggist's name and address, in connection with an order for Holloway's 'Herb Tea', accompanied by \$2. This order includes 250 sample packages of the Tea, and a lot of counter wrappers, etc.

Last year the O. & W. Thum Co., of Grand Rapids, Mich., extensively advertised their Tanglefoot Holder by putting two free into each box; over two million were thus distributed. The inquiries lately made show that they were appreciated by a very large majority of the dealers and their customers, and that their popularity has deservedly increased. The object being accomplished, the company will, as in former years, pack only one with each box for the dealer's own use, or for him to present to some good customer. Extra Holders can be obtained through the jobbers.

If you want anything in the way of Jugs, or jars for ointments, pomades, acids, etc., the Akron-Canton Stoneware Agency, 225 Lake street, Chicago, can supply you. Send for their catalogue; they handle stoneware of all sizes and descriptions.

The Cudahy Pharmaceutical Co., of South Omaha, Neb., are distributing a fac simile of the official blue ribbon received by them at the World's Fair. It reads "Premium for excellence in quality and flavor on Rex Brand Beef Extract exhibited by the Cudahy Pharmaceutical Co., South Omaha, Neb."

The fact that the Welch Grape Juice Co., of Vineland, N. J., produced 40,000 gallons of grape juice during 1893 is pretty good evidence that their goods are of a character which creates a demand. The purity and fine color of their unfermented grape juice are qualities which have brought it into its present favorable position with the physician and consumer. Sample 2-oz. bottle will be sent free to druggists. It is a great favorite with soda water dispensers.

Charles Allen Reed, of No. 9 Cliff street, New York, gives some very cogent reasons why Callisaya La Rilla should be handled by the retail druggist, and asks the pharmacist in a very frank manner to consider both sides of the question which arises when the expediency of the home manufacture of preparations of callisaya come up. It is a question which involves the success of the physician and indirectly that of the pharmacist, and is to the latter one of dollars and cents also. The prices and quality of Callisaya La Rilla should be investigated.

Beach & Claridge Co., of Boston, Mass., desire to call the attention of the drug trade to the fact that they give special attention to wants in the soda water line. Their goods embrace everything in the line of flavors, pure fruit juices, etc. They furnish a most attractive line of advertising for their patrons in the way of fountain hangers and transparent window signs, and their copyrighted formula book, which is furnished with first orders, is an exceedingly valuable and useful publication. If you have a soda fountain you need their help. Send for catalogue.

THE WORLD'S FAIR FOR SALE.

LOOK AT IT! The Michigan Central has arranged with one of the best publishing houses in the United States for a beautifully printed series of World's Fair pictures, to be known as the Michigan Central Portfolio of Photographs of the World's Fair.

The original photographs would cost not less than a dollar apiece, but the Michigan Central enables you to get 16 pictures for 10 cents.

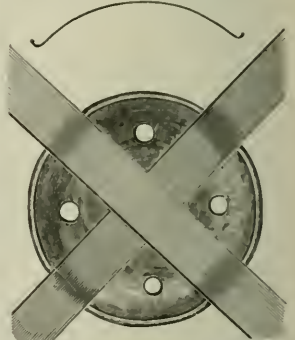
If you saw the World's Fair, you want it as a perpetual souvenir of a memorable visit.

If you didn't get there you want this to see what you missed, and to fill your mind with the beauty and glory of the White City.

Call on the nearest Michigan Central ticket agent, and he will furnish you with the first part and tell you more about it, or write to O. W. Ruggles, G. P. & T. A., Chicago, enclosing 10 cts. for the collection.

The Connecticut Witch Hazel Co. recognize the fact that competition is the life of trade, and they have entered the field realizing fully that only the best goods can create competition. Their distillate is manufactured while the bloom remains on the witch hazel bush and is thus claimed to be the best product both as to aroma and strength. The company has distilleries at Chester, Hadam and Killingworth, Conn., and offices at 132 Nassau street, New York.

Cushman's Menthol Inhaler furnishes one of the best means for the application of menthol, both as a remedial agent in acute diseases, and a mild, soothing exhilarant for use in cases of insomnia, nervousness, lassitude, etc. The inhaler consists of a glass tube four inches in length and one-half inch in diameter, open at both ends. It contains pure crystals of menthol, confined at each end by a hollow cork covered by a perforated cap, allowing the air to pass freely through the mass, and thus become thoroughly mentholized. The apparatus is advertised in such a manner as to create a demand through the retail druggist, who can obtain it of all the leading jobbers. Order of the jobbers, but send your label for printing your address on 250 Japanese napkins for your soda fountain, books, cards, etc., to the proprietor, H. D. Cushman, Three Rivers, Mich.



There is one important period in the life of every individual when he feels a disposition to withdraw from the active duties of life and avoid, as much as possible, contact with his fellow men. This period is popularly known as the time when a "vaccination is working," and its disadvantages are only assumed as the lesser of two evils. The intelligence that these unpleasant consequences of vaccination can now be avoided will be received with genuine pleasure, except possibly by some who will blame the inventor for not coming to the front years ago. Robert Stevenson & Co., of Chicago, have lately put upon the market a vaccination shield which is illustrated above and it is doing no violence to a well-worn phrase to say that it fills a long felt want. It consists of a ventilated disc or shield of aluminum provided with bandages which hold it securely in place over the vaccine eruption, thus allowing its wearer as much freedom of movement as if the eruption did not exist. This invention is sure to be a great seller, as the demand for it will exist as long as the benefits of vaccination are apparent.

There is probably no product that has lately received more attention through the columns of the medical and pharmaceutical press than Peroxide of Hydrogen. Its medical qualities have gained for it a prominent place in the U. S. Pharmacopoeia, 1890, and the pharmacist is now in a position to pass judgment upon its purity and general characteristics. Larkin & Scheffer, manufacturing chemists, St. Louis, Mo., call attention to their brand of this preparation as "an ideally perfect product," made in strict accordance with the requirements of the U. S. P. 1890, and invite the drug trade to give it a trial upon these positive assurances.

The retail druggist is well aware that a case for mailing liquids is a very useful article to have at hand for emergencies. As the latter are occurrences beyond the range of prophecy there is nothing like being always prepared. There is no telling when your physicians or customers may desire to send liquid preparations by mail, in fact a readiness to fill an occasional demand usually results in an increase of demands to be filled. Druggists will therefore find that a small stock of the goods of the United States Mailing Case Co., of Boston, is an investment which not only pays upon its face but brings additional business.

FOOTE & JENKS TO THE FRONT WITH A BRIGHT NEW CARTON.

Beginning with the new year, we have arranged to supply a handsome new carton for our No. 608 bulb bottle for our Triple Extracts, so as to make them a much more desirable package for handling, either by jobbers or retailers.

The cordial reception given our 8 oz. perfumes in style No. 608 has induced us to continue to sell all regular Standard F. & J. Perfumes in the following list of odors, put up in half pint bottles at \$3 per pint:

PER BOT.	PER BOT.
White Rose..... 1.50	Crab-Apple Blossom..... 1.50
White Heliotrope..... 1.50	son..... 1.50
Heliotrope..... 1.50	Trailing Arbutus..... 1.50
White Lilac..... 1.50	Mignonette..... 1.50
Purple Lilac..... 1.50	Egyptian Lotus..... 1.50
Lily of the Valley..... 1.50	Patchouly..... 1.50
Jockey Club..... 1.50	Stephanotis..... 1.50
Carnation Pink..... 1.50	Tuberose..... 1.50
Apple Blossom..... 1.50	New Mown Hay..... 1.50
White Ylang, etc..... 1.50	Rose Geranium..... 1.50
Golden Rod..... 1.50	etc..... 1.50

SPECIAL ODORS.

Our special and trademarked odors in Style No. 608 list as follows:

PER BOT
Linden Bloom [registered].....\$1.75
Phytlian Bouquet [registered].....\$1.75
Santa Maria [registered].....\$1.75
Eastern Star [registered].....\$1.75
Violet.....1.75
Black Pansy.....1.75
Extra Tonquin Musk.....\$2.50
Extra Frangipanni.....\$2.50

FOOTE & JENKS, Perfumers, Jackson, Mich.



No. 608, 8 Oz.

Remember that the indexes for each issue are always to be found on first red sheets.

Those druggists who are not taking advantage of The Merz Empty Elastic Capsules in making up their own elastic filled capsules, as well as the special prescriptions of physicians, are losing both money and custom, and don't know what they are missing.

Perrenot, apothecary, corner Lancaster and Girard avenues, Philadelphia, says, under date of January 12, 1894: "I have been using your elastic capsules and don't know what I would do without them." Take time by the forelock and order a sample thousand of your jobber, or by remitting direct to the manufacturers, The Merz Capsule Co., Detroit, Mich.

The harvest of next summer is one which concerns the retail druggist, and his own particular harvest in the way of a good soda water business is one which requires careful preparation and considerable thought. D. H. Bates & Bro., Dayton, Ohio, call attention in this issue to several implements for the cultivation of this particular field, among which are their two machines for shaving ice for soda fountain use, the Star and the Polar. They also call attention to an effective means of getting rid of flies around the soda fountain, by the use of their Star Electrical Ceiling Fans. All these appliances are useful and soon pay for themselves. Send for catalogue.

Fine fixtures and appointments will not make fine soda water. The idea which is found in the old story of the famous painter, who, in reply to an inquiry as to what he mixed his paints with, replied, "Brains," is quite apropos in connection with the dispensing of good soda water. It requires brains. The publishers of Saxe's New Guide were cognizant of this fact, and their work, containing 160 choice formulas and many hints regarding the business, will be found to supply what every progressive dispenser will recognize as a necessity. The price has been reduced from \$5 to \$3, and at this hard times basis is certainly within the reach of every druggist who desires to make a success of his soda water trade. Address The Saxe Guide Publishing Co., 409 Dearborn street, Chicago, Ill.

There is nothing like having the confidence of your patrons, but this cannot be gained if you are in the habit of rinsing your soda glasses in a bucket under the counter. There is a slight suspicion of uncleanness attaching to this method. The tumbler washers manufactured by L. L. Rowe, 16 Howard street, Boston, Mass., do away with all this suspicion. They can be placed in plain sight if desired, and the operation convinces the customer that everything is perfectly clean, as it should be. Rowe's latest improved automatic washer has a brush attachment in addition to the water jets, which makes assurance doubly sure in the matter of cleaning tumblers. Any druggist who contemplates improvement in his soda water dispensing department should write for prices and description of these fixtures.

MARDI GRAS CELEBRATION AT NEW ORLEANS AND MOBILE.

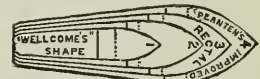
The Cincinnati, Hamilton & Dayton Railroad will make rate of one fare for the round trip from all points to New Orleans and Mobile, account of the Mardi Gras Celebrations; tickets on sale January 30th to February 4th inclusive, final limit returning, February 28th, 1894.



Bell-Cap-Sic Plasters are well advertised in all the first-class magazines and leading papers, and as a natural consequence they are good sellers. The elegant oleograph "The Puppies" is a great hit, and it is also playing an important part in the advertising of these goods. The special offer on these plasters which will be found in this issue of the Era is worthy of careful attention. All orders should be sent to J. M. Grosvenor & Co., 105 Milk street, Boston, Mass., but the goods will be shipped through the jobbers. Mention the Era when writing.

LADD HILL STOCK FART.

Dr. F. L. Gerald, of Laconia, N. H., writes as follows: "In my opinion Quinn's Ointment is the best preparation ever made to remove bunches. I have removed two splints and a curb, and have half a box left. It seems to be painless in its action, which is something I have never seen with any other blister. I have recommended its use for at least two years." For curbs, splints, spavins, wind-puffs and all bunches, use this wonderful remedy. Quinn's Ointment is endorsed by the leading breeders from Maine to California. It will pay all druggists to carry it in stock, and if you desire advertising or will send the name of ten or twelve of your customers who are in the horse breeding line, to Messrs. W. B. Eddy & Co., Whitehall, N. Y., they will forward them, without charge, trial packages.



IMPROVED EMPTY CAPSULES FOR MEDICATION IN THE RECTUM.

H. Planten & Son, New York, the well-known pioneer capsule house of the United States, have recently placed on the market an improved empty capsule, of which a sketch is shown herewith, for medication in the rectum. The ordinary cone-shaped suppositories which have so long done duty are easily expelled, causing much aggravating annoyance and disappointment to both physicians and patient.

The shape of these Empty Rectum Capsules is in accordance with the suggestions made by Mr. Henry S. Wellcome in his lecture before the Amer. Pharm. Assoc. at their annual meeting in Chicago.

This improved or Wellcome shape will be found in every way superior to any Empty Gelatine, Cocoa Butter or Gluten Suppositories now on the market, and pharmacists should send to Messrs. H. Planten & Son, New York, for samples and literature on the subject of their Planten's Improved (Wellcome) Rectum Capsules.

NEW ENGLAND VACCINE CO.

With small-pox getting a foothold in Boston for the first time in many years, and vaccination going on at the rate of more than two thousand persons a day, it becomes interesting to know where the virus comes from. Almost all that is used in that city is supplied by the New England Vaccine Co. The company has a farm in Keveer and stables in Chelsea, and during a visit to the latter by an Era representative, Dr. Wm. C. Cutler, physician in charge, gave many interesting details regarding the manufacture of vaccine points.

"This animal," said Dr. Cutler, sitting on a stool behind one cow, "you see, was inoculated seven days ago, and the men have been charging the Ivory points from the vesicles all day to-day. These vesicles are just like vesicles of small-pox on a human being. We take especial care to have the lymph perfectly clear, and while you may have noticed a little blood on the Ivory point with which the cow was being inoculated, there is none whatever on this, nothing but the pure lymph. See that drop coming from the sore? See how pure it is? That has to be caught up instantly."

Then the doctor caught the virus on the end of a small Ivory point. It was a dainty little piece of Ivory, about an inch long and an eighth of an inch wide, and as thin as a wafer. "The end, you see," said the doctor, "is sharp with beveled edges, just like those of a knife, so that the surgeon can make the scar with it on the arm of the patient, then insert the lymph and throw the point away. That makes everything safe, because even a surgeon's knife is apt to become dirty, or have matter of some kind adhere to the blade." The doctor continued to pick off the virus on the small Ivory points, and then lay them down carefully on a round tin plate, on which there were hundreds of little points already dipped, and all carefully laid in circles. In a case on the other side of the room a score of tin plates, exactly like those being used by the men, rested on shelves, like pies at the baker's, the small Ivory points all carefully laid, and the whole case protected by a fine wire screen. "We have to protect the points from the flies and dust," explained the doctor, "for one fly could spoil a puff of lymph. Every precaution must be taken to have the points and the lymph clean. All you see in that case were dipped to-day. There are about 3,000 points. How many points do we take from each cow? Well, I should say about 1,000. An animal, after being inoculated and staying here seven days, spends one day in the operating room, then it is sent back to the farm. Nearly all of these points, however, have to be charged again and from a different cow. We always charge them twice, because that makes them surer; if the virus from one cow does not take, that from another is pretty sure to."

Thousands of Ivory points have been sent out from the office of the company, on Broadway, Chelsea, during the last few weeks, and the demand for the lymph is growing greater. A corps of young women put up the bits of Ivory in little tin tubes, the virus being carefully protected with wood.

"We have been shipping large orders to Cincinnati, Chicago, Brooklyn, New York, Baltimore, Pittsburg and scores of small cities and towns," said Dr. Cutler. "We

have been sending out on an average about 4,000 Ivory tips a day, but the demand is growing greater, and will probably reach four times that amount. We sent out 5,000 to-day, 3,000 of which were ordered by the Board of Health of Boston, and this morning the board ordered 2,000 more. Chicago has been sending in large orders ever since the fair closed. I have heard it stated that there were many cases of small-pox in the city during the summer, but that they were kept quiet until after the exposition had closed. Now the Board of Health has awakened and is working night and day. The Pittsburg Board of Health orders quills instead of Ivory points," continued Dr. Cutler, exhibiting a bottle filled with quills charged with virus. "I presume that they cut the quills up and make them do double service. This is sometimes done with the Ivory points, but it is not a good way to economize. We have been getting these Ivory points for twenty years from a factory at Deep Rivers, Conn., and they have become much more popular with physicians than quills, so much so that we seldom get orders for quills."

"There is something interesting," he continued, holding a vial up to the light. "That is pure liquid virus; you see, it is clear as water. It isn't often you see it in such quantities, and even this is too old to be of much use, but we keep it as a curiosity. I have something else," and the doctor showed what was apparently a small strip of glass, almost as fine as a needle, about three inches long, with an inflation at the center of it. "That is hollow," he exclaimed. "See, here is another," and he held up one with red sealing wax on both ends. "We draw the virus into that, make it air tight, and send lymph great distances. We have shipped it to China, the Sandwich Islands and many other countries. But you understand it must be kept fresh. We have no stock on hand. Points charged to-day will probably be used by doctors to-morrow. It is ten years since the demand for virus has been so great. At that time we supplied Boston with 5,000 points a day. In 1872 or '73, just after the big fire in Boston, small-pox reached its greatest height, and about 15,000 points were furnished. The big fire drove the patients out among the people, and the disease spread."



Sherwood's patented specialties of white lustral wire, manufactured by Woods, Sherwood & Co., Lowell, Mass., include so many articles of utility to the druggist that the catalogue of this firm should be in the hands of every wide-awake pharmacist. Their line of goods includes many forms of brush and soap racks, sponge and paper baskets, picture easels, show stands, etc. The druggist can easily select from this list a great variety of articles which would be profitable for him to handle.

CHAS. C. JENKS,
Jackson, Mich.

In the accompanying engraving, we present portrait of the author of the now celebrated Linden Blossom Perfumery, though the perfume "Linden Blossom" was the joint conception of himself and his partner, Mr. Foote.

Mr. Jenks' taste for perfumery began as a child, and when at fourteen years of age, he entered a drug store as apprentice, his predilection manifested itself by his interest in aromatics, and his inclination toward the experiment in perfuming colognes and toilet waters and perfumed hair oils, which at that time were in high favor. Later, when he had completed his studies, he extracted emulsion to more general use as one of his chief perfume. Mr. Jenks was at once attracted by them, and gave the process of their preparation an exhaustive study and research.



This, coupled with practical experience in combination and mixing of the standard working formulas, resulted in the development of a new and delicate odor that was christened "Linden Blossom," which at once became the chief specialty of the house of Foote & Jenks. From the experimental table, other new and rare combinations were soon brought forward, until the list of F. & J. perfumes comprised all the leading odors popularly known, beside several special bouquets of exquisite fragrance.

Mr. Jenks attributes his success as a perfumer to the special gift of Providence in an extraordinarily acute sense of smell, which he has taken pains to care for and cultivate. For several years he traveled quite extensively, both in introducing the products of his house and visiting those institutions where perfumers' raw materials are prepared, so that by a more extended acquaintance and knowledge he might attain the highest perfection in his calling.

He is a constant student of essential oils, pomades, and other aromatic products, which combined with the chemical and botanical knowledge of himself and Mr. Foote, largely accounts for the ever increasing popularity of the products of this young house. They are practicing the motto: "Not low cheap, but low good!"

Mr. Jenks was born in Essex, near Ann Arbor, Mich., and received his first school instruction in that city.

Besides his other duties, he holds the office of secretary and treasurer for the corporation of Foote & Jenks.

"Economy in buying a brush is to buy the best that can be had, as a poor brush is one of the most useless articles that can be imagined. It not only costs the user the price paid for it, but loss of material upon which it has been used and a spoiled job generally." These remarks are taken from the catalogue of the Cincinnati Manufacturing Co., Cincinnati, O., and the idea is apparently not lost sight of in the manufacture of the goods which this firm puts upon the market. Their catalogue shows a very comprehensive line of brush goods and should be consulted by the trade before placing orders.

MAP OF THE UNITED STATES.

A large, handsome map of the United States, mounted, and suitable for office or home use, is issued by the Burlington Route. Copies will be mailed to any address, on receipt of fifteen cents in postage, by P. S. Eustis, Gen'l Pass. Agent, C. & Q. R. R., Chicago, Ill.

Amongst the large number of articles manufactured by the Herf & Frerichs Chemical Co., of St. Louis, the Iodine preparations take a foremost place. Their Iodide Potassium, Iodoform, Resublimed Iodine, and the various smaller preparations such as Iodides of Ammonium, Sodium, Lithium, Iron, Lead, Calcium, Mercury, etc., are so uniformly pure and reliable that they deserve the special attention of physicians and druggists.

A. S. Hinds, Portland, Me., has a special offer upon his Honey and Almond Cream, which every druggist should investigate. This preparation has a well-established reputation which makes it a good seller, but at the same time the proprietor is always ready to aid the druggist in extending its sale, by furnishing samples free of expense. Write for information regarding the special offer, and mention the Era.

Every person who has sore lips or chapped hands is on the look-out for something to relieve them. The druggist who keeps Witch Hazel Jelly is the one who is going to draw this class of trade and keep it. The mere mention of the fact that this preparation is a delightful one for use after shaving is sure to create a demand for it. It can be procured through your jobber, or of the manufacturers, Mayell-Hopp Co., Cleveland, Ohio.

Whenever you have a call for Cucumber and Elder Flower Cream, take care of it. Do not say you don't keep it, but tell your customer that you will get it. This preparation is manufactured by Mrs. Gervaise Graham, 1555 Michigan avenue, Chicago, and she will pay freight on the smallest order. Plenty of samples and advertising are furnished to help sell this preparation.

Those who have never tried the "D. & O." brand of oil of sandalwood should include with their next order to their wholesaler, an original four-ounce bottle. It is claimed to be stronger and better than any other, and is guaranteed to give satisfaction. All extensive buyers of essential oils, otto of roses, oleo-resins, pomades, powdered drugs, vanilla beans, etc., should make it a point to obtain prices from Dodge & Olcott, 86 and 88 William street, New York, before buying.

The Joel A. Connolly Plaster Co., of Boston, Mass., are willing to convince the drug trade as to the merits of their Croton Oil Plasters by sending one free for trial to any druggist who desires to test them. As the application of croton oil in a proper manner is an operation not always within the reach of the physician, the drug trade can to a great extent help matters by calling the attention of the medical profession to Connolly's Croton Oil Plasters. Write for full particulars and mention the Era.

It is no longer a question as to whether soda water is a paying side line for the druggist. That was settled long ago in the affirmative, and the question is now one of apparatus. The field for selection is so large that all tastes may be suited, and it should be thoroughly canvassed before a choice is made. "This is what the Robert M. Green Co., of Philadelphia, ask of every dealer who is interested in the soda water business. They will be glad to quote prices on both new and old apparatus upon application.

If you have not investigated the "Climax" removable glass syrup jars, manufactured by the John Matthews Apparatus Co., 449 First avenue, New York, you should send for description of this latest and greatest improvement in soda water apparatus. The catalogue of this firm for 1894 is ready for distribution, and will be sent free to all who are interested in the soda water improvements.

The Maltby & Wallace Co., of Champaign, Ill., have lately put upon the market a new trituration machine which consists of the application of mechanical power to the operation of the mortar and pestle. In these machines the mortars revolve and the pestles have a forward and backward motion, while a stationary scraper constantly throws the powder to the center of the mortar. All of the different motions are under the control of the operator, and one may be stopped without interfering with any other. The machines are arranged for either electric or steam power.

The W. Buedingen & Sons Co., of Rochester, N. Y., have lately moved into their new factory at 53 and 55 Platt, near State street. They now occupy a floor space of nearly 50,000 square feet, and their equipment consists of all the latest improved machinery for the manufacture of everything in the line of paper boxes, shipping tags, paper specialties, etc. They turn out everything from the cheapest to the finest, and are prepared to execute all orders, from the small job up to the large contract order. Send for new catalogue.

Neat, attractive packages are a great factor in bringing and keeping the best trade for the retail druggist. The use of bottle cartons, folding paper boxes, slide boxes, etc., is of course attended with expense, but the customer, as a rule, shows a willingness to stand the expense by going to the pharmacist who puts up his goods in the most attractive form. The Folding Paper Box Co., of South Bend, Ind., give special attention to this feature of the retail drug trade, and will be pleased to send samples and estimates on anything in the paper box line upon application.

Whittall, Tatum & Co., of Philadelphia, show something in this issue of the Era which ought to attract the attention of every druggist. The Phenix Herb Cans are an improvement upon the usual style of these containers. They are made of heavy tin, japanned a rich olive green color, with gold lines at top and bottom. The names instead of being painted on the cans are lithographed on strips of metal, and these labels are held in place by neat brass frames, which are detachable, thus allowing the contents of the cans to be changed at pleasure.

The Buckeye Paint & Varnish Co., of Toledo, Ohio, have an establishment equipped with the most approved machinery, managed by experienced workmen, which facts, coupled with a determination to use only the best raw material, and to place only the best goods upon the market, place them in a position to court the closest criticism and severest tests upon their products. Their "Buckeye" and "Corn City" brands of paints, varnishes, japans, wood fillers, etc., bear a favorable reputation, and they will be pleased to quote net prices upon application.

If you have a particular medicinal preparation which you desire to put upon the market in quantities, B. M. Butler, pharmaceutical chemist, Armitage avenue and North Paulina street, Chicago, asks you to correspond with him for estimates and prices. Mr. Butler is the proprietor of the laboratory previously owned by Morrissson, Plummer & Co., and has all the formulas formerly owned by that firm. An increase of facilities and the addition of new machinery places the new management in a position to solicit orders for anything in the line of pharmaceutical manufacturing, and guarantee perfect satisfaction both as to prices and products.

A bottle of perfumery which bears the name of Ed Pinaud carries with it a guarantee for all the requisites of a fine perfume. The new and exquisite perfumes recently put on the market by this house under the names "Aurora Tulip," "Paquita Lily," "Acacia de France," have all the characteristics which have distinguished the productions of the firm during the last seventy-five years, and those of the retail drug trade who desire to convince themselves of the quality of these goods will be furnished with free samples upon application to Ed Pinaud's importation office, 42 E. 14th street, New York City.



Spencer, Tioga Co., N. Y.

Dear Sir: In answer to yours would say that I have sold your Liquid Heave Cure for several years. It has given general satisfaction. In fact it has become a necessity with our livermen and all others who have used it.

Yours truly,

C. J. FISHER, Druggist.

TO THE TRADE.

We want every druggist to know that we are one of the largest wholesale distributors of Rye, Bourbon and Malt Whiskies in bond and tax paid, in this country. We can furnish Eastern and Western Ryes, Sour Mash and Sweet Mash Bourbon and Malt Whiskies. We can supply fine blended whisky under our own trade mark, as well as straight Ryes and Bourbons of our own bottling. We are agents for the product of Sen. Stanford's celebrated "Vina" ranch, whose wines and brandies are not excelled in this country.

We are headquarters for Alcohol and Cologne Spirits, which we supply at the lowest market quotations, and in addition to these staples we are agents for most of the celebrated cordials, such as Creme de Menthe, Kummel, Maraschino, and we carry in stock many others. A postal card from you will bring a printed list of the goods we carry, and we are pleased at all times to answer any inquiries from druggists regarding our goods.

THE WEIDEMAN CO.

33, 55, 57 and 59 Water st.,
Cleveland, Ohio.

You will never be sure that you have done the best possible in purchasing store furniture until you have got estimates from Charles P. Whittle, manufacturer of druggists' furniture, Boston, Mass. Send for catalogue, which may show you something you are in need of.

The Ash Soda Fountain Co., 207 South Canal street, Chicago, is a new firm which has lately engaged in the manufacture of all kinds of soda water apparatus for the drug trade. They have adopted the term "Superior" as a distinguishing appellation for their goods, and they ask the drug trade to obtain their prices and terms before purchasing.

As Four-Fold Liniment, manufactured by R. Matchett, Allegheny, Pa., is warranted as a speedy remedy in many diseases of horses and cattle, it is a quick seller wherever introduced. Address the proprietor for circulars and terms, and note list of jobbers from whom it may be obtained in advertisement in this issue of the Era.

"Stick 'Em" is an excellent name for fly paper, and the Stecher brand, bearing this name, is popular with the public because the term describes the characteristic features of the goods. It is claimed by the manufacturer, Henry W. Stecher, of Cleveland, O., that "Stick 'Em" is the largest paper upon the market, and therefore gives the best satisfaction. It is for sale by all jobbers.

The annual meeting of the Emerson Drug Co., Baltimore, was held January 8th, and the old officers of the company were re-elected as follows: Isaac E. Emerson, president; John F. Waggaman, vice-president; Joseph F. Hinds, secretary and treasurer. A dividend of 16 per cent on the capital stock of \$250,000 was declared. This speaks well for the selling qualities of "Bromo-Seltzer."

Billings, Clapp & Co., manufacturing chemists, of Boston, call particular attention to their advertisement in this issue to their bromide and iodide of potassium, and the salts of iron. This firm manufactures everything in the pharmaceutical line, and are sole proprietors of the well-known Nichols preparations. Their catalogue should be in the hands of every retail druggist.

The fact that E. T. Hazeltine, of Warren, Pa., is compelled to print each succeeding year, a larger edition of his unique pocket almanac, is evidence that they are popular with the public, and offer a good advertising medium for the retailer. If you have not received your supply for 1894, send in your business card without delay, that a supply may be printed before they are all gone.

Don't push patent medicines when you can buy reliable remedies from Irwin, Kirkland & Co., manufacturing pharmacists, Decatur, Ill., at one-half the price with your address on the labels and wrappers. They will add to your professional standing, and serve as an excellent advertisement in keeping your name and business before the public, and will hold trade and influence other customers to use your remedies.

Fred. N. Burt, of Buffalo, N. Y., is after the drug trade with some prices on druggists' boxes and labels which ought to receive attention. He claims to have set the standard for cheap boxes and can supply the trade with any quality or style from the coarsest to the finest, at proportionately low prices. Write for catalogue and prices.

PAPOID FOR DYSPEPSIA.—It. C. M. Page, M. D., contributes a paper to the New York Polyclinic on "Functional Dyspepsia, So-called." He divides functional dyspepsia into two varieties—irritative and atonic—in both the real pathological element to be dealt with being often a subacute or chronic gastro-intestinal catarrh. In the former class we find patients who are not infrequently robust and addicted to drink, glutinous habits, or the eating of highly seasoned food and the like. In the latter are found those who suffer with a general lowering of the vital powers.

But in either case there is a deficiency in quantity and quality of gastric juice, and an abnormal increase of alkaline mucus which gives rise to fermentation rather than digestion. The stomach becomes distended with gas, so that peristalsis is impaired and there is obstruction to absorption of the stomach contents. Moreover, the food becomes so enveloped in this alkaline mucus that the gastric juice fails to penetrate it and reach the food.

In the treatment of these cases, removing the cause and regulating the diet are of prime importance. As for removing the cause, this is often impossible in case the dyspepsia be associated with organic disease such as carcinoma, phthisis, and diseases of the liver, especially those that cause obstruction to the portal circulation.

But in irritable dyspepsia, dependent on alcoholism for instance, the cause can and should be removed. In the same way the opium habit must be dropped. Glutinous habits should be modified and the use of improper and highly seasoned food or food that is improperly cooked, be discontinued. In the atonic form, too, the cause can often be ascertained and modified, if not removed entirely. As such may be mentioned depressing emotions from loss of loved ones, financial ruin, the so-called disappointment in love, political aspirations and the like. Anything that lowers the vitality should always be looked for and treated, as menorrhagia, excessive sexual indulgence, overwork with insomnia, as well as lack of sufficient and wholesome occupation. In any case, meals should be regular, and the food eaten with deliberation instead of being swallowed hurriedly, especially while mentally worried about some scheme or other. In atonic dyspepsia, as a rule, tonic treatment is indicated and the patient has to be built up. But in irritable dyspepsia the very opposite course is often to be pursued, care being taken especially to avoid starchy and fried foods and fats, as well as alcohols.

Besides removing the cause and regulating the diet, many remedies have been suggested and tried by different practitioners from time to time. Of these remedies, papoid is one of the best. It dissolves the abnormal mucus secretions, thus removing a prime cause of fermentation, besides stripping the food of its mucous envelope and thus exposing it to the action of the gastric juice. In addition to its direct digestive action on the stomach's contents, it also seems to have a stimulating effect upon the gastric mucous membrane. Its therapy is not materially interfered with by any of the drugs usually given internally, and it is equally efficacious in acid, alkaline or neutral media. That it is not destroyed in the

stomach like animal pepsin, is proved by the fact that even in ordinary doses a trace of it may be found in the stools, thus showing that the whole gastro-intestinal tract has received the benefit of its action. In cases where diminished peristalsis is marked, accompanied by accumulations of gas in the stomach and bowels, it is well to add strychnia. The average dose of papoid is about one and a half to three grains ter die after meals, and one of the most convenient methods for its administration is in tablet form.

BAKING POWDER

In a paper read before the Georgia Pharmaceutical Society, George F. Payne gave results of his analyses of the leading powders on the market, and suggested the following formulas for the various types. The figures are based upon the tartaric acid selling by the ton at 25 cents a pound, cream of tartar at 23½ cents, acid phosphate of lime at 7½ cents, dried alum at 4½ cents, starch at 3½ cents, and bicarbonate of soda at 3½ cents. That these powders should keep well, each ingredient should be first thoroughly dried by a gentle heat, and they should be kept securely closed in dry fruit jars, corked bottles or sealed cans.

1. Tartaric acid..... 1 pound.
Bicarbonate of soda..... 1 pound.
Starch (powdered)..... ½ pound.
Costs about 11¾ cents a pound.
2. Cream of tartar..... 2 pounds.
Bicarbonate of soda..... 1 pound.
Starch (powdered)..... ¾ pound.
Costs about 13¾ cents a pound.
3. Acid phosphate of lime. 1½ pounds.
Bicarbonate of soda..... 1 pound.
Starch (powdered)..... 1½ pounds.
Costs about 4½ cents a pound.
4. Acid phosphate of lime. 2 pounds.
Dried ammonia alum..... 2 pounds.
Bicarbonate of soda..... 3 pounds.
Starch (powdered)..... 5 pounds.
Costs about 4 cents a pound.
5. Dried ammonia alum..... 1 pound.
Bicarbonate of soda..... 1 pound.
Starch (powdered)..... 1 pound.
Costs about 3½ cents a pound.

To the above cost should be added the cost of the containers and the time consumed in doing the work.

The ingredients, all finely powdered, should be first sifted separately, to get rid of all lumps, then the soda and starch should be well mixed together, and finally the acid ingredients should be added, and all thoroughly incorporated, either by rubbing together in a mortar or by sifting at least three times. Flour can be used in place of starch, and is considerably cheaper.

A recipe is given for each variety of baking powder. The amount of starch can be increased in any of the recipes, the other ingredients being left the same, and in this way be made at almost any price desired. The starch is simply used to keep the chemicals in a powder form from acting upon each other as much as possible, and, being cheap, is used very liberally in the low priced baking powders. Each recipe will produce a baking powder equal to the very best of its respective kind, if the very best chemicals are used. Adulteration is so common in cream of tartar that this chemical should be always carefully tested when purchased. First-class materials, of course, cannot be purchased in small lots at the figures given above.

DETECTION OF ADULTERATED LINSEED OIL.

At the annual meeting of the National Paint, Oil and Varnish Association held in November, the subject of adulterated linseed oil provoked considerable discussion. The P., O. and D. Review publishes a few of the adulterants and the manner in which they may be detected.

Linseed oil is liable to be adulterated in a variety of ways. Of foreign seed-oils, cotton and nigerseed oils are most used; mineral and rosin oils, often both together, are largely used; and rosin itself is also added.

The density of genuine raw linseed oil lies between 932 and 937, while that of the boiled oil varies from 939 to 950. Mineral and all foreign seed oils are lighter than linseed oil, while rosin and rosin oils are much heavier. By the judicious use of a suitable mixture of mineral and rosin oils, extensive adulteration can be effected without alteration of the density.

The solidifying point of pure raw linseed oil is about -27° C., but samples containing other seed oils solidify at a higher temperature. The same remark applies to the relative fusibility of the fatty acids, those prepared from cottonseed oil having an exceptionally high-melting point.

The iodine-absorption is a valuable test for, and method of determining the proportion of, a seed oil in linseed oil, provided that other adulterants are absent. Thus raw linseed oil assimilates from 155 to 160 per cent of iodine, while cottonseed oil takes up only 105 to 109 per cent. Certain fish oils absorb fully as much iodine as does linseed oil.

The rise of temperature on treating the oil with strong sulphuric acid is also a useful test for linseed oil, which gives more heat than any other seed oil; though it is equalled and even exceeded in this respect by some of the fish oils.

The sulphuric acid color test is a useful indication of the purity of linseed oil. With a genuine sample a dark-brown clot is formed; if rosin oil or fish oil be present a reddish-brown spot quickly forms, which in the former case retains its red tint for a long time, whilst a peculiar scum forms over it. This test is also applicable to the detection of rosin oil in boiled linseed oil, while the reaction is more rapid.

Fish oils may also be detected by the darkening produced by passing a rapid stream of chlorine through the oil, and by the reddish color produced by boiling the oil with an alcoholic solution of caustic soda. They are further recognizable by the taste and the smell of the sample on warming, and by the peculiar scum which rises when such oil is heated to boiling. As a test for cod oil which is not unfrequently used in the case of linseed oil intended for the preparation of printing ink. A. Morell recommends the following test: 10 grammes of the oil are agitated with 3 grammes of common nitric acid, and the whole left to stand. With pure linseed oil the color will change during the stirring to a sea-green color, afterwards becoming dirty green-yellow, whilst the acid assumes a light yellow color. In the presence of even 5 per cent of cod oil, after standing some time the oil is said to acquire a dark brown color, while the acid is tinged orange or dark yellow, according to the proportion of the adulterant present. A similar test has been described by A. Conrath for the detection of rosin oil.

WHITE LEADS OF COMMERCE.

L. J. Matos has endeavored to ascertain whether the white leads found in the American market are true to their claims as respects purity and excellence, and contributes some interesting results of his investigation to the Drug, Clrc. Five samples, which bore the labels of the manufacturers and their names and addresses, the firms all well-known to the trade as reliable, were found to be of the average percentage composition of about 10% to 12% per cent of oil, and 87% to 89% per cent of lead. With certain other samples, however, the results were not so satisfactory.

A certain so-called Superior White bearing the label of the Ajax Color Company, showed 12.29 per cent oil, 50.42 per cent zinc oxide and 37.28 per cent barytes.

American Standard Pure White Paint gave 10.55 per cent oil, 37.16 per cent lead, 52.17 per cent zinc.

Excelsior White Lead, 18.87 per cent, 37.45 per cent lead, 42.60 per cent zinc.

Blessing's Improved White Lead, 10.54 per cent oil, 71.28 per cent zinc, 17.90 per cent lead.

Household White Lead, a brand which appears not to be manufactured by anyone, showed oil 16.53 per cent, zinc 72.94 per cent, lead 2.41 per cent, barytes 8.09 per cent.

U. S. Standard White, 14.24 per cent oil, 57.56 per cent lead, 28.07 per cent zinc.

Imperial White, which appears to be put up by the same parties as the preceding, shows 13.08 per cent oil, 28.72 per cent lead, 26.19 per cent zinc, 32.02 per cent barytes.

The writer argues that it is poor policy for anyone to purchase paints which do not bear the names of their makers, for no reputable manufacturer can afford to put out inferior goods, such as these, under his own brand. The druggist is advised to be discriminating in his selection of paints and to sell only goods which bear the name of a reliable maker.

THE OLDEST TREE now extant is probably the baobab (*Adinsonia digitata*), of Africa, alias the sour gourd or cream of tartar tree (*Andinsonia Gregorii*), of Australia. This remarkable tree has a rather short and branching trunk not more than sixty or seventy feet high, while its girth at the ground is from eighty-five to ninety-five feet. One of them has names cut upon it which date back to the fourteenth century, and the naturalist Addison, who gave the genus its botanic name, calculated from certain data that its age must be upwards of 5,000 years. The hollow trunk of these trees, which are capacious enough to hold comfortably thirty or forty bodies, are used as tombs by the native Africans, where the suspended corpses soon become thoroughly mummified and preserved.

In a series of curious experiments at Naples, Italy, it has been found that the salts of lithium have the effect of producing monstrosities in the eggs of some marine creatures. From eggs treated with such salts young are hatched that have limbs in all sorts of abnormal places, being formed, apparently, from cells that do not produce limbs at all under normal conditions. It is supposed that the cells of the embryo exercise a selective absorption on the salt, some taking it up more readily than others, and that this causes the abnormal growth.

DRUGS FROM BURMAH. A. Sutherland recently entertained the members of the British Pharmaceutical Society with a description of the free and easy way in which business is carried on in an Oriental bazaar. From an account of his talk which *Phar. Jour.* prints, it is seen there is an entire absence of any restrictions on the sale of poisonous drugs, which are freely scattered among the harmless herbs and even ordinary articles of food. After exhibiting and describing a large number of the commoner drugs of vegetable origin which he had collected from the bazaars, the speaker gave a description of the character and uses of the more important ones and drew attention to the extensive prevalence of the doctrine of signatures. The specimens included a sample of star anise as generally sold in the bazaars, which on examination was found to be a mixture of the fruits of *Illicium anisatum* and *I. religiosum*; the pitch of *Aralia papyrifera*, used in the making of so-called Chinese rice paper, and a set of pictures illustrating the manufacture painted on sheets of *Aralia* or rice paper; a specimen of black *Aconitum ferox* root, a variety said to be steeped in cow's urine, giving it a strong and persistent hyraceum-like odor, used for poisoning tigers, probably the *Teliya* *Bachnag* of Oriental writers; and specimens of red, white and black seeds of *Abrus precatorius*, the white variety being used as a standard of weight by the Burmese.

Mr. Sutherland said the opium question in Burmah resembled the drink question at home. The sale of opium was a government monopoly and a source of considerable revenue. One marked difference was that an opium eater or smoker, unlike a liquor drinker, never got violently intoxicated, and never disturbed his neighbors or assaulted his relatives. He was usually stowed away in some obscure corner until he recovered. One therefore never saw much, or indeed any of it in the streets or any public place. There was no doubt, however, that it was a degrading practice, and was so regarded by the people themselves. The chief way in which the degradation revealed itself was in the form of petty thefts. The person who had acquired a taste for opium would do anything to procure it, and after recovering from a debauch, would steal anything he could lay hands on to get a few coins to purchase a further supply. This was about the only way in which the opium devotee annoyed his friends and neighbors. So far as he could judge, the use of the drug appeared to be on the increase. He believed opium was used largely by some tribes, especially in India, as a preventive of malarial fever, and apparently without injurious effects.

It is expected that the manufacturers of the United States will be handsomely represented at the World's Fair to open at Antwerp, Belgium, on May 5, 1894. A corporation called "The American Propaganda" will put up an elaborate structure of steel, iron and glass, to contain the American exhibit which, in addition to those of individual exhibitors, will include an "American Pliaisance," showing the salient features of our commercial methods by means of models of our shop arrangements and various business facilities, illustrated by a model telegraph office, post-office, printing office, telephone exchange, fire station, bank, barber shop, and a model American drug-store.

PALM KERNEL OIL.—The nuts are deprived of their external pulp, or old nuts picked up from under the palm trees are placed in the sun for days and even months, until they are perfectly dry. They are then broken between two stones and the kernels obtained whole or in perfect condition, and fit for exportation, and so form the commercial palm kernels. If they have not been perfectly dried the kernels break into pieces. The oil obtained from these kernels by the following process is called white kernel oil. They are put into wooden mortars and pounded very finely, then removed to a grinding stone and ground into a homogeneous mass, which is put into cold water and stirred with the hand. The oil rises in white lumps to the surface of the water; this is collected and boiled. It is of a very light straw color, and when exposed to the sun and dew becomes, after a time, perfectly white.

Brown or blast oil is thus obtained: The kernels are put into a pan and fried; the oil oozes out and is strained, the fried nuts are placed into wooden mortars, pounded, and afterwards finely ground on a grinding stone. The mass is thrown into a small quantity of boiling water and stirred continually; the oil rises and is gradually removed until it ceases to rise. The pulpy mass is removed from the fire and spread out in a large bowl and allowed to get cool, after which it is again ground and put by until the cool of the day, when it is mixed with a little water to soften it. It is now beaten with the hand for some time until the oil comes out in white pellets. As soon as this is observed a large quantity of water is put into it, and the oil, as a fatty substance, floats on the top, which is skimmed off and boiled, and the pure oil obtained.

PURIFYING AIR BY CHARCOAL.—Chas. Toope, who has taken a prominent part in the attempts to abate the smoke and fog nuisance in England, suggests the application of charcoal for purifying the air of the houses located in infected districts—all air admitted to be passed through thin canvas bags containing crushed charcoal. He holds that were such precautions taken, many regions now fatal to Europeans could be dwelt in with impunity. Mr. Toope is by no means the first to call attention to the remarkable absorbent properties of charcoal. Forty years ago the chemist Stenhouse described and illustrated the capabilities of charcoal as an absorbent and oxidizer of the products of decomposition of organic matter. He tells how the carcasses of dogs were kept covered with a thin layer of powdered charcoal—but otherwise exposed—without any nuisance arising therefrom. He adds that he has devised a respirator on this principle, to be used in districts smitten with cholera or yellow fever. He found, further, that with such a respirator he could breathe with impunity air containing large amounts of ammonia, sulphuretted hydrogen and other hurtful gasses. Stenhouse goes on to show how charcoal can be "platinized," or combined with minutely divided platinum. Charcoal containing even 2 per cent of platinum causes a mixture of oxygen and hydrogen to combine perfectly in about a quarter of an hour, and this strength of platinized charcoal is stated to be well adapted for charcoal disinfectant respirators.

THE SANITARIAN'S OPINION OF MECCA WATER. Here is an interesting little bit from the Ch. and Dr. report of a recent meeting of the Chemical Society. Mr. Mitchell read a paper on a sample of Mecca water brought by Sir Ilchard Burton from Ilagar's Well, forty years ago, when he made the pilgrimage to Mecca. Two circular tin flasks were filled by the explorer at that time and they have been in the possession of Lady Burton ever since. It seems from Mr. Mitchell's remarks that the supply of water in the well is becoming scanty, so the care-takers of it pour the water over the pilgrims, allowing as much as possible to drip back again. What the natural water may be, it is, therefore, difficult to say, but, as it is, sewage is an appropriate name for it. Mr. Mitchell found it to contain 219 grains of solids per gallon, 71.4 grains of free and combined ammonia per million, and 19.9 grains of nitrate and nitrates.

SOLID PETROLEUM BRICKS are a form of fuel which promises to come into active use. Sci. Am. describes the manner of their formation as reported in a French publication: One litre of petroleum is mixed with 10 per cent of resin, 150 grams of powdered soap, and 333 grams caustic soda and the whole heated and stirred at the same time. After about 10 minutes solidification begins, and the operation must be carefully watched. If there is a tendency to remain liquid, a little more soda is added, the mixture is then stirred until the mass is nearly solid, when it is poured into molds, which are placed for ten or fifteen minutes in a drying stove. One recommendation is the addition of 20 per cent of wood sawdust and 20 per cent of clay or sand. It is claimed that these bricks furnish about three times as much heat as the same amount of coal, and their special advantages are the absence of smoke, and a large reduction of bulk of fuel as compared with coal, while the risks attaching to the carrying of liquid fuel are avoided.

OXALIC ACID AS THE PLANT'S PROTECTOR. A very interesting statement from a German periodical is going the rounds to the effect that the role of oxalic acid in plant life is that of a protective agent, the writer taking exception to some of the theories which heretofore have had credence. The acid taste serves to protect plants from the ravages of animals, the same as do mechanical protective organs, such as spines, needles and hairs, and, in other instances, as some point out, offensive odors and the like. As the chemical protector of underground parts, the author calls attention to tannin, and very often tannin is found present in the young shoots above ground before the oxalic acid has put in an appearance. He notes that oxalic acid is commonly found in larger quantities in smooth plants, whose appearance is more attractive to animals.

An English contemporary, in commenting upon the refusal of the English courts to allow the registration of a certain word (Somatose) as a trade mark, expresses some surprise that the authorities should permit such a registration in this country. It appears that the procedure in patent and trade mark cases in the United States is very nearly in direct op-

position to the practice in England. In this country the patent office is not supposed to determine the right to the use of a trade mark except in certain defined instances wherein words in common use, such as geographical names, etc., are not subject to registration, and the right to use a trade mark is founded simply upon priority of appropriation. In our patent office, however, a patent is only granted after a thorough examination for possible infringement. It appears that they do things differently in England in the matter of patents, as is shown by the following from the Photographic Times: "Writing of patents, we cannot help thinking what a kind, benevolent institution the English patent office is. You have only to draw out a specification for an apparatus by which you intend sailing to the moon and back, and with the utmost consideration they will relieve you of your cash and grant you a beautiful patent, all signed and sealed, or you can take out a patent for making an eye in a needle to thread it by, and get it; whether it is of any value or not is left to your judgment, and if any oppose you, you are quietly left to fight it out by yourself, and so assist in enriching the government's coffers and the attorney's and counsel's pockets."

Shortage of mint crops and extended uses of the drug, are the causes of the present active demand for menthol. It is stated that the supply was never so inadequate to the requirements of trade, and that advices as to the Japanese supply are far from encouraging. Menthol has experienced such a fluctuation in prices during the last ten years that a further advance will act as an unpleasant reminder of old times. In 1884 menthol was sold at prices ranging from \$12 to \$15 per pound, but gradually declined, reaching its lowest quotation, \$1.50, in 1888. Since the latter date it has experienced a steady advance until now manufacturers' quotations are very near the \$5 mark.

The Retail Druggists' Fire Insurance Association of Ohio held their annual meeting at the office of John Weyer, Cincinnati, January 10, and elected the following board of directors for the ensuing year: L. C. Hopp, Cleveland; Phil Lehr, Cleveland; John Byrne, Columbus; M. A. Burkhardt, Dayton; C. T. P. Fennel, Cincinnati; John Weyer, Cincinnati; F. T. Bower, Toledo. These organized and chose M. A. Burkhardt president; John Weyer, secretary; C. T. P. Fennel, treasurer. The operations of the association are confined only to the State of Ohio, and none but retail druggists can become members. The annual report shows that during the past year the losses were only 8 per cent of the total premiums received, the members getting the benefit of a large rebate. It was also shown that most of the losses occurred in small towns. The company has risks to the amount of almost \$1,000,000.

Lynn & Barnes, of Paulding, Ohio, whose place of business was recently destroyed by fire, have built a new store and have awarded the contract for fixtures to John Phillips & Co., of Detroit, Mich. These fixtures are to be of quartered oak, and will include all the latest designs and improvements for which the work of this firm is noted.

THE MARKETS.

New York, January 25, 1894.

A decided movement in jobbing circles is reported and the markets show considerable improvement. The volume of business is fully up to the average, and in some instances trade is said to be better than it was at the same time last year. While the demands are for jobbing parcels, wants are frequent and prices are well maintained. There has been a number of committee meetings of the N. W. D. A. held recently, and as a consequence a number of well-known wholesalers from out of town have been visitors to the city. The drug trade section of the Board of Trade, at their annual election of officers, elected the following gentlemen for the ensuing year: Chairman, Thomas F. Main; vice-chairman, John W. Peters; secretary, Wm. J. Schieffelin; treasurer, W. D. Faris. Considerable excitement has been caused among the dealers in asafoetida over the rejection of three lots of gum consigned to well-known houses here. It seems an odd clause in the law has been raked up, which directs the rejection of gum going through the custom house not containing a certain average of pure gum; this has been revived, and the three lots reported are the first to fall under the rule. An appeal will be taken from the decision, and the drug trade section of the Board of Trade will also take it up at its next meeting.

OPIMUM—Shows an improvement both in price and business. Inquiries for case lots have been frequent and a number of lots have changed hands at varying prices; the jobbing price for single cases at present writing ranges from \$2.35 to \$2.50.

POWDERED OPIMUM—Has also been advanced. There are yet a few sellers at \$3.15, but the nominal market price is \$3.25 to \$3.35.

MORPHINE SULPHATE—Is in usual demand. American, in ounces, \$2.25; foreign, \$2.10.

QUININE SULPHATE—Continues in good demand. Manufacturers report business good, values are on a firm basis, and buying has been stimulated by the general belief that an advance will soon take place. There has been no material change in prices. Foreign, 22½ to 23¢; American, 23½ to 25¢ in bulk.

ALCOHOL—Is dull and featureless; prices made ten weeks ago still rule, and buying is for actual necessities only. Prices quoted are \$2.24 to \$2.28, with the usual 10-bbl discount.

WOOD ALCOHOL—The demand continues good, and at the low prices now prevailing some buying ahead is indulged in; previous prices quoted still rule.

ERGOT—Remains quiet. The situation abroad is reported firm. Indications show an advancing tendency for both Spanish and German. No change in prices is reported as yet for this market.

CACAO BUTTER—Is in light supply, and the small quantity on hand is held for full prices. Reports of supplies to arrive serve to keep prices between 35 and 40 cents.

BLEACHING POWDER, English—Continues scarce and prices rule high; 3 to 4½¢ is asked, with German at 2½ to 3¢.

OXALIC ACID—The demand for immediate delivery has increased somewhat, and wants are readily filled at market quotations, 8 to 9¢.

SAL SODA—Is in better demand and inquiries for spot goods are numerous. The number of arrivals has caused the market to take a somewhat easier tone.

CHLORATE OF POTASH—Is maintained in steady position with a slight improvement in demand. Prices remain without change.

SAL AMMONIAC, White—Has advanced. Advices from abroad quote the market as very firm; 8 to 9¢ in casks is asked, although there may be a few who are yet willing to shade prices.

BORAX—Business continues good, without change of prices.

BLUE VITRIOL—The market is well maintained. Prices steady at 4 to 4½¢ in casks.

NITRATE OF SODA—Stocks on hand are very light and dealers are holding firm on prices, quoting ½¢ to ¾¢ in wholesale jobbing quantities.

COPPERAS—Inquiries for spring delivery have begun to appear, but even in the face of dull business there seems an unwillingness to make concessions in price. Jobbing quantities are offered at 80 to 85 cents.

CITRIC ACID—Remains quiet and nothing seems to be offered below manufacturers' prices. Barrels quoted 43½¢, kegs 44¢.

COCAINE—Continues high. Muriate is quoted in ounces at \$5.05 to \$5.35.

MENTHOL—Continues high and scarce. Holders make no concessions in price and buyers are holding off, waiting for a decline. Values continue to range from \$5.50 to \$8, as to brand and quantity.

CAFFEINE, and its Salts—Remain at advanced prices, without change.

ARSENIC, White—Is scarce and high. The demand for small parcels continues, but buyers seem unwilling to pay advanced prices and trade is somewhat retarded; 4 to 6¢, as to quality and quantity, are ruling prices.

ALUM—The market is well maintained and no supplies are offered at less figures than \$1.80 to \$1.85 for lump and \$1.55 to \$1.95 for ground, in bulk packages.

CREAM OF TARTAR—Continues quiet with only fair business. Prices previously quoted are without change.

BRIMSTONE—Is in fair demand. In view of the light stocks on hand prices have slightly advanced.

QUICKSILVER—Is in moderate demand at 46 to 50¢, as to quantity.

CORROSIVE SUBLIMATE, Blue Mass, Calomel, Red Precipitate and Nitrate of Silver remain without change at previously quoted prices.

TARTARIC ACID—The market is unsteady, and the reported arrival of supplies here has caused prices to decline a shade. Crystals are offered 24 to 26¢; powdered, 25 to 28¢.

CASTOR OIL—Has increased in demand. Orders and inquiries from jobbers are numerous; prices are without change and previous quotations still rule.

COD LIVER OIL—Values for prime qualities are firm, as the supply of these grades is said to be getting light. Prices range from \$21.50 to \$24 per barrel.

MANNA—Appears easy. In view of the high prices reported from abroad only an ordinary business is being done. Prices remain at 85 to 90¢ for large flake; small flake, 36 to 40¢.

CASTLE SOAP—The supply of well-known brands seems to be limited, and firm prices prevail; 10½ to 12½¢ is asked for white and 6 to 8¢ for mottled.

GLYCERINE—Is without change. Values are a shade easier, owing to active competition. Barrels, 13 to 16¢; cases, 16 to 20¢.

BALSAM COPAIBA—A satisfactory business is being done. Wants of the jobbers are more numerous, and the market indicates a firmer tone. Central America, 37 to 45¢; Angostura, 60 to 70¢; Para, 50 to 58¢.

BALSAM FIR—Light stocks continue to act as an important factor in prices. Values continue steady at advanced prices, and no sales below market rates are noted. Prices continue at \$4 in barrels.

BALSAM PERU—Is selling well at slightly advanced prices. The non-arrival of expected stocks has served to stiffen prices, which range from \$1.70 to \$1.78 for 28 to 112-lb cases.

BALSAM TOLU—Is firm and light stocks of the best grades are reported. Prices are well maintained and very little outside stocks are offered; 30 to 35¢ are ruling prices.

GUM ASAFOETIDA—Best grades are very scarce and high. Prices for goods of this sort seem to be eagerly accepted at holders' figures, and very little prime is offered. Sales reported are few and a heavy advance is expected in view of the government's action. Prime is quoted at 35 to 45¢; ordinary, 25 to 35¢.

GUM CHICLE—Is without special features of interest. Prices range from 35 to 40 cents.

GUM BENZOIN—Is in firm demand at advanced prices. Fancy grades sell at \$2 to \$2.50; best vanilla, 90 to 95¢; powdered, \$1.05 to \$1.15; Sumatra, from 38 to 80¢, as to quality.

GUM CAMPHOR—Is dull and without interest. Prices remain without change at 45¢ in barrels, 46¢ in cases.

OIL CASSIA—Is firm. Advices from abroad show a firm condition of the market, and prices here have advanced; 90¢ to \$1.05 seem to be inside figures.

OIL CUBEB—Is dull and depressed. Prices quoted range from \$1.70 to \$1.85.

OIL ANISE—Has advanced. Values here are firmer. Star is quoted at \$1.50 to \$1.65; Russian, \$3.75 to \$4 for 5-lb bottles.

OIL PEPPERMINT—Continues dull and no business of importance has been transacted. Holders seem inclined to wait for advanced prices, which are expected to come with the spring demand. Western, \$3 to \$3.25; D. & O. in 20-lb cases, \$2.85 to \$3.

OIL BAY—Is in usual demand at fair values; \$3 to \$6 per lb, as to brand and quality, is quoted.

OIL ROSE—Is steady, without change in prices. Best, in 1, 2, 4 and 8-oz bottles, \$9 to \$9.50.

TONKA BEANS—Are firmer, and the price of prime Angostura has been advanced, while Para shows a slight decline. Angostura quoted \$2 to \$2.25; Para, 40 to 60¢.

VANILLA BEANS—Have improved in demand. Prices remain without change.

SARSAPARILLA, Mexican—Is slightly easier and only a small business is being done. Mexican is quoted in jobbing quantities at 12 to 14 cents.

LOVAGE ROOT—Is in good demand at 38 to 40¢.

RHUBARB—Shows considerable activity in a jobbing way. Orders for all varieties in cuts and whole root are numerous. Prices for first quality cubes, about 150 pieces to the pound, range from 70¢ to

\$1.80; slabs, round-trimmed, 85 pieces to the pound, \$1.10 to \$1.80.

CARAWAY SEED—Is firm. Prices have advanced owing to reports from abroad of a very firm tone of the market. Prices quoted here range from 7 to 9 cents.

ANISE SEED—Is in fair demand. Values range from 10½ to 12½¢, as to quality.

Opium is firmer owing to cable advices telling of severe frosts in the opium growing districts. This report materially strengthened the market, and on the day the news was received considerable business was done. "Assafoetida is higher," says W. H. Raser, "as the result of a recent decision of customs appraisers, refusing to pass an inferior lot of London gum, and in future will refuse to admit any gum not up to pharmacopoeia standard. As fully three-fourths of the available supply in London and elsewhere is said to be exceedingly poor, the higher grades will necessarily command more money, while those in this market who have stocks of inferior London grades have advanced."

W. H. Bowdler & Co., Boston, quote Beeswax, crude, in original packages, large lots, 25 to 27 cents per pound. W. H. B., refined, 30 cents, white 40 cents. Carnuba Wax, No. 1, 25 cents, No. 3, 18 cents. Ozokerite, 7 cents and upwards.

PATENTS,

TRADE-MARKS AND DESIGNS.

From U. S. Patent Office Gazette.

TRADE MARKS.

- 23,765—Extracts for Making Ginger Ale.—Hiram W. Weeks, Philadelphia, Pa. The fac-simile signature "H. W. Weeks."
- 23,766—Flavoring Syrups and Carbonated and Effervescing Beverages.—William Guilford, Glasgow, Scotland. The word "Burmo."
- 23,772—Anodyne and Antifebrile Preparations.—The G. F. Harvey Company, Saratoga Springs, N. Y. The word "Ricklein."
- 23,773—Antiseptics.—John De Christmas Dirckinck De Holmfeld, Paris, France. The word "Phenosalyli."
- 23,774—Medical Compounds for the Treatment of Nervous Diseases.—Empire Cure Company, Jersey City, N. J. The words "Empire Cure."
- 23,775—Remedy for Corns, Warts, Bunches and Callouses. Francis M. Criswell, Washington, D. C. The representation of a crow.
- 23,776—Cotton-seed Oils for Mechanical and for Food Purposes.—The American Cotton Oil Company, New York, N. Y. A representation of an eagle with outstretched wings resting upon a globe and grasping branches of the cotton plant.
- 23,794—Tonic Compound.—The Purdue Frederick Company, New York, N. Y. The name "John F. Gray."
- 23,795—Liniment and Remedies for Diseases of the Blood, Skin, Lungs and Throat.—Herbert E. Goodrich, Yankton, S. D.—The word "Aztec" upon the representation of a square bottle.
- 23,796—Medical Compounds for the Treatment of Nervous Diseases.—Empire Cure Company, Jersey City, N. J. The representation of an Imperial crown.
- 23,797—Remedies for Rheumatism, Gout, Neuralgia, Sciatica, and Kindred Ailments.—Butler and Claridge, Washing-

ton, D. C. The representation of a hand holding between the thumb and index finger a bottle at an angle, with its mouth up and with a series of drops dripping from said mouth.

- 23,798—Remedy for Nervous Disorders.—Drew Benedict Allen, New York, N. Y. The word "Antilliq."
- 23,799—Preparation for the Skin Consisting of a Cream-Like Ointment.—Frederick H. Muller, Chicago, Ill. The word "Kirkaskia."
- 23,800—Emollient for the Skin.—Shirey & Brown, Buena Vista, Va. The words "Arnica Cream," within parallel lines obliquely placed.
- 23,821—Certain Named Remedies.—Edward M. Beals, New York, N. Y. The words "Sultan's Secret."
- 23,822—Certain named Remedies.—Francis Patrick Cummings, Pocomah, Va. The words "Cummings Blood Cure" and a monogram of the letters "C B C."
- 23,823—Pharmaceutical or Dietetical Compounds.—Farbentfabriken vormals Fr. Bayer & Co., Elberfeld, Germany. The word "Somatose."
- 23,824—Pills, Plasters, Lozenges and a Remedy for Coughs.—Bernhard A. Hertsch, Philadelphia, Pa. The word "Plixto."
- 23,825—Plasters, Liniments, Ointments, Medicated Candy, and Remedies for Coughs, Cholera and Headache. Wilkins & Beckner, Greenfield, Ind. The word "Acme" with a monogram of the letters "W" and "B."
- 23,826—Liniments.—Christian Protexer, Chicago, Ill. The words "Dr. Ira J. Haskins' What Is It?" and the bust portrait of Dr. Ira J. Haskins.
- 23,827—Suppositories.—R. E. Harris & Co., San Angelo, Tex. The representation of a suppository with the symbol "Rx 1492" stamped on the base thereof.
- 23,834—Natural Mineral Water.—William J. Williams, Waukesha, Wis. The word "Ellm" together with the representation of an owl and the medical sign "R."
- 23,844—Perfumed Articles for the Toilet that are Consumed in Use.—Victor Klotz, Paris, France, and New York, N. Y. The words "Paquita Lily."
- 23,845—Soaps, Powders, Lotions, Dentifrice and Other Perfumed Preparations for the Toilet.—Victor Klotz, Paris, France, and New York, N. Y. The representation of an oblong figure having a rustic border, and bearing a circular band with the words "Ed Plnaud, Paris," upon it and enclosing a basket of flowers.
- 23,846—Corn and Bunion Cure.—Nicholas Manufacturing Company, New York, N. Y. The word "Corncracker."
- 23,847—Cough Drops.—George D. Feidt, Philadelphia, Pa. The representation of a frog with the numeral "3" and the letters "F F F" appearing or printed on its back.
- 23,848—Remedies for Coughs, Colds and Throat Affections.—William B. Shaw, North Attleborough, Mass. The words "Dr. Burden's Formula."
- 23,849—Liniment.—Goodrich & Jennings, Anoka, Minn. The words "Hoff's German."
- 23,850—Anti-Cholera and Tonic Remedy.—Maria Branca Scala, Milan, Italy. The fac-simile signature, "Fratelli Branca Co."
- 23,851—Certain Named Remedies.—Henry W. Beecher, Winsted, Conn. The words

"Brown's Anodyne and Family Medicine," arranged as shown, to-wit: with the word "Anodyne" displayed the most prominently and ranking in substantially a diagonal line on a scroll-like ground, and the word "Brown's" and the words "And Family Medicine" appearing respectively above and below the word "Anodyne."

- 23,861—Substance for Exterminating Rats, Toaches and Like Animals and Insects.—Charles William Manwaring, Chicago, Ill. The word "Knockemstiff."
- 23,873—Mineral Water, Ginger Ale, Phosphate, Ozonate and Carbonated Beverages. White Rock Mineral Spring Company, Waukesha, Wis. The representation of a woman kneeling upon a rock at the mouth of a cave and looking into the water below.
- 23,875—Insecticide.—Stephen Mueller, La Crosse, Wis. The word "Bugicide."
- 23,876—Fluid Compound for Female Disorders.—John L. Lyon, New Haven, Conn. The words "French Periodical Drops."
- 23,877—Anti-Cholera and Tonic Remedy.—Marin Branca Scala, Milan, Italy.
- 23,878—Liniment.—John M. Englehart, Somerset, Ky. The words "Englehart's Rheumatic Liniment" arranged within the parallel lines of a double triangle.
- 23,882—Hair Tonics.—Leon Pierre Federemeyer, Chicago, Ill. A monogram composed of the letters "F & B."
- 23,883—Oil of Roses.—George Luaders, New York, N. Y. The word "Carlova."
- 23,885—Castor Oil.—The Baker Castor Oil Company, Jersey City, N. J., and New York, N. Y. The word "Crystal."
- 23,887—Preparation for the Hair.—Robert Shoemaker & Co., Philadelphia, Pa. The word "Peruvian."
- 23,898—Anti-Cholera and Tonic Remedy.—Maria Branca Scala, Milan, Italy. A label having a background formed of oval loops inclosing the words "Fernet Branca, Fernet, Branca" in one color.
- 23,899—Anti-Cholera and Tonic Remedy.—Maria Branca Scala, Milan, Italy. The compound word "Fernet-Branca."
- 23,900—Medicine for Coughs, Colds, Bronchitis and Kindred Diseases.—The Shawnee Remedy Company, Toledo, O. The letter "E" superposed on three-sprays of golden-rod with the number "1001" directly below it.
- 23,901—Veterinary Medicine for Distemper and Cough.—Albert A. Wells and George R. Craft, Lafayette, Ind. The representation of a trefoil or three-leaf clover, having thereon pictorial representations of a horse's head, a sheep's head and a dog's head.

In experiments on the power of cholera bacilli to withstand cold, a culture estimated to contain 1,433,000 bacilli was submitted to five days' uninterrupted freezing, which killed them all. When the freezing was interrupted some of them lived six and even seven days, but it is thought safe to assert that no cholera bacillus can develop after it has remained in ice eight days.

On an appeal against the decision of the collector at the port of New York in assessing 50 per cent ad valorem on cachous made of extract of licorice, sugar and flour upon a classification as a toilet preparation, the board of appraisers ruled against the claim of the importers, J. C. Drucklieb & Co., that a rate of five and a half cents per pound for extract of licorice should apply.



W. SIMON.

PROF. W. SIMON is a native of Germany, his birth occurring February 2, 1844, in Eberstadt, Hessen, his father being a clergyman of the Lutheran church. The youth received his early education at the college in Glussen and in his 17th year entered a drug store. Three years apprenticeship was followed by a successful examination which entitles the candidate to act as assistant pharmacist and as such he served during the next two years in different parts of Switzerland. In 1866 he commenced university studies at Glussen, two years later passing the State's Examination as pharmacist, and on December 4, 1869, graduating as doctor of philosophy.

Professor Simon was a participant in the German-French war of 1870 when he served as chief of a sanitary corps. Near the close of that year he came to Balti-

more, where he had accepted a position to take charge of the chemical part of the manufacture carried on by the Baltimore Chrome Works. In this service he virtually revolutionized the methods for the production of potassium bichromate, and the processes by which the article is now manufactured were invented and patented by him. When he reached Baltimore he found that in that city there was no place where analytical chemistry was taught practically, and upon request from a number of gentlemen, mostly physicians and pharmacists of long standing, he instituted a course in analytical chemistry, the venture proving a flattering success. The following year he was appointed professor of analytical chemistry in the Maryland College of Pharmacy, which was the first pharmaceutical institution in this country to make analytical chem-

istry an obligatory branch of study. In 1872 he received appointment to the chair of general chemistry in this institution and a few years later took the added duties of a professorship in the College of Physicians and Surgeons. For the past three years he has filled, too, the chair of chemistry in the Baltimore College of Dental Surgery, which is the oldest dental school in the world. He is the author of a Manual of Chemistry, the first edition of which appeared in 1884, a second edition was exhausted in two years and a third in less than twelve months.

He was president of the Maryland State Pharmaceutical Association in 1889, and at the Norfolk meeting of the A. P. A. was elected chairman of its section on Education and Legislation. He is a member and honorary member of numerous societies.

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THE PHARMACEUTICAL ERA.

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advertising page 30.

EDITORIAL.

REVISED PRICES CURRENT.

The Prices Current, which has long been a feature of the Era, has been revised and materially enlarged. The list embraces those articles in the drug stock which are subject to frequent market fluctuations, besides the standards which suffer little variation. New remedies are fully enumerated, and paints, oils and glass are not omitted. It is believed this list is now of very practical and serviceable character. It receives semi-monthly revision, and is kept fully abreast of the market.

THE GOVERNMENT'S CHEMICAL WORK.

The paper by Dr. Wiley in this issue is a noteworthy one. It describes the extent and value of the service rendered to economics in this country by the government's bureau of agriculture through its Chemical Division. The general public has but a dim comprehension of the nature of this service, for did it have such knowledge, it would appreciate its value in the highest degree. The paper is written in a simple conversational style which is a model in its way, and in comprehensiveness and quality of information it is particularly excellent. The public has been a little inclined to belittle the work of the Agricultural Department, but what it has done for the farmer in the way of imparting information regarding soils and crops and the most remunerative methods for working up the latter is having its effect in the betterment of conditions under which this class of the community labor. The paper is commended to the general reader as well as to those who are specially interested in the subject it concerns.

LAW FOR YOU; NOT FOR ME.

Is life less valuable to the dweller in a small town than to one in a city? Kentucky legislators seem to think it is, for they have decided not to extend to the former the protection the latter enjoys under the provisions of the pharmacy act. A bill requiring druggists in towns of less than one thousand inhabitants to qualify themselves the same as those in larger municipalities, by securing certificates, was defeated. This result is said to be due in large measure to the fact that the physicians of Louisville and other cities requested that the existing law be let alone, and perhaps, too, because country people did not wish to surrender the convenience afforded by the country storekeeper who sells drugs, and the wishes of this class of constituents was not to be disregarded. The Kentucky countryman must remain in jeopardy from inexperienced and incompetent druggists. The pharmacy laws of nearly all the states make exceptions in favor of the patent medicine vender and so-called domestic medicines; in Kentucky

true pharmacy is made the exception, and can be followed only in the larger towns and cities.

OBSERVE THE LIQUOR LAW.

A large number of Chicago druggists were arrested early this month for violation of the regulations governing the sale of liquors. There is no particularly new feature in the case, and the excuses and explanations offered by the druggists are of the old stock character. The matter, looked at from a news standpoint, is detailed in our news department. Here its other aspects must be considered.

How and why should there be arrests for offenses of the nature charged? It is a lamentable fact that observance of excise restrictions by druggists is not thorough and complete. No excuse should be accepted for violation of laws they have promised to uphold. The temporizing policy followed by so many cannot be too strongly condemned. The law may be burdensome, unjust, but, being the law, offenders should be punished for its infraction. It would be a good thing if a few of the arch sinners were made examples of, and we say this not from ill motives, but in the honest belief that the drug business and professional pharmacy would benefit therefrom. Among the arrested druggists are some of the best known and most respected of the profession, one a member of the state board of pharmacy, and we submit, whether they be guilty or innocent, is it not deplorable, a slur upon the profession, that such things are and can be? We would warn the druggists who were not arrested to live up to the law, register every sale of liquor for medicinal purposes, and absolutely refuse any liquor to be drunk on the premises.

THE NEW DISPENSATORIES.

It speaks well for the assiduity of the compilers and the business facilities of the publishers that the two great dispensatories, the United States and the National, are presented in completely revised form so soon after the appearance of the new Pharmacopoeia. The matter of choice between the two works is largely of opinion or prejudice merely; for, were merit alone to decide the question, it would be exceedingly difficult of determination. The text of both works is very comprehensive, and the treatment of the subject matter is fully abreast with the times. Either dispensatory is a complete commentary upon pharmacy of the present day, and an encyclopedia of information invaluable in practice and theory. Were we inclined to submit any criticisms, the gravest would be that the compilers of these works have given the equivalents in apothecaries' system for metric weights and measures. Of course a very large proportion of pharmacists will consider this a most valuable feature in the books, but, inasmuch as the Pharmacopoeia, the only official work, the guide for the profession, authorizes only the decimal or metric system, the adoption of this generally for practical service is delayed by the action of the compilers of the dispensatories. We are sorry to note this feature, for without it the pharmacist would be obliged to adopt the official system, or, at least, be compelled to make the proper transpositions from one method to the other, an operation which would very quickly familiar-

ize him with the official one. It is hard to understand why there has been any opposition to the metric system, particularly why pharmacists are so slow to familiarize themselves with it and use it in their daily practice. It can be mastered by very brief study and in convenience for manufacturing operations, pricing, etc., it is not to be excelled. On the whole, however, to use a stock phrase, American pharmacy can "point with pride" to its new Pharmacopoeia and its two great dispensatories, which have no equals in pharmaceutical literature of other countries.

EXAMINATION QUESTIONS.

It is very gratifying to us to find how general is the interest felt in the plan of publishing in this journal series of examination questions and replies. It has been but two weeks since the first series was presented, but already the replies are so numerous that any fears we may have entertained as to the extent of favor this feature would meet are proven groundless. They show very conclusively that there are many who desire to test their knowledge, and who find such questions efficient guides to study. One young man writes us, "I am one who has not yet had an opportunity to try the board examination and I think these questions will be a great help to me. It is to be hoped that those availing themselves of this opportunity may not stop when successful in passing an examination, but will continue increasing their professional knowledge by asking and answering the questions in these series. I find the proper way of pursuing the study is to write out the questions. When I first glanced at them I thought they could be readily answered, but when I began to write down the answers I found I had to refer to my books many times before I was through."

In this last sentence our correspondent gives expression to the principle upon which it is proposed to continue the publication of these examination questions. It is desired to print questions which will test the real knowledge of the student, rather than those which admit of answer by a mere reference to text books. In the main they involve some principle or basic idea, an understanding of which is necessary to correct answers. They are selected without particular regard to classification, that is, any series includes questions in the several branches related to pharmacy instead of being devoted to some particular subject. As a rule, a correct answer means putting into practical service knowledge possessed, or necessitating considerable search to elicit the principle or idea upon which the question is based. Thus, for instance, when the student is asked to perform a calculation to arrive at the volume of a liquid, specific gravity and other factors are involved. These questions are by no means intended to serve merely as aids to those desiring to pass board of pharmacy examinations, for though many of them may be considered typical of questions propounded by the boards, they are not identical with those of any particular body. Careful study of these questions will point out to the student the weak and the strong points in his educational armor and, using them as guides to study, he is enabled to test the strength and repair the weaknesses.

From the character of answers already received, it is gratifying to note the young men following pharmacy in this county are more widely qualified and better posted than some people have seen fit to believe. But on the other hand there are occasional answers which demonstrate that the institution of our boards of pharmacy was a very wise step to guard the profession against the entrance of incompetent exponents of the art and profession. We hope to receive increasing liberality of responses and are confident that this feature will exceed our most sanguine expectations in regard to practical service.

A RAILROAD PLAN FOR CUT RATES.

For an ability which is able to make the best of a situation which has been popularly denominated, "hard times," the managing powers of the various railways of the United States probably stand without a peer. Not only are they able to keep their bowls turned upward when the skies rain porridge but are able usually when necessity requires to create that peculiar meteorological condition which causes a precipitation of this much desired article of diet. It is quite true that much has been heard of the dire poverty which has lately afflicted our transportation companies and of their inability to pay dividends upon stock representing values which may possibly be approximated in nineteen hundred and something. The separation of several railroad presidents in affluent circumstances from their roads in non-affluent circumstances has been noted, and the sympathies of the people have gone out toward these institutions in a way that would shame the crocodile's simulation of grief.

Two serious obstacles have always stood in the way of satisfactory returns from railway operators. These are, a tendency to a lowering of rates, and a constantly increasing number of claims for damages to goods during transportation. It has remained for the wisdom of that impersonal body, the Central Traffic Association, to devise a plan to meet these difficulties. To accomplish this object, two rates have been made, the higher being charged upon goods for which the shipper desires the transportation company to assume the ordinary liability of a common carrier, and the lower rate where the shipper releases the carrier, or in the words of the release, "The shipper does hereby release and discharge, so far as he lawfully may, the said railroad company and all other railroad or transportation companies to which the said property may be delivered for transportation to or toward its place of destination, from all claims, demands or liabilities for any loss thereof or damage thereto howsoever occurring, by fire or otherwise, or whether by negligence of the said railroad or transportation companies or of their or either of their officers, agents or employes or otherwise, while the same is in their care, custody or possession."

The signing of such a release by the shipper forms the basis for a new form of bill of lading which contains, in addition to the above release, a clause making the document non-negotiable. The matter of rates is fixed by the announcement that "Property shipped not subject to uniform bill of lading conditions, will be charged one class higher than as herein provided and cost of marine insurance." To say that these new regulations are

obnoxious to every man who has occasion to ship goods by rail is putting the situation quite mildly. The choice is now offered of paying a higher price than formerly to have the transportation companies assume their "ordinary" liabilities as common carriers, or that of paying the old rate, releasing the goods, and praying that no "negligence" shall supervene before the delivery of the same at destination. As many of the commodities of the drug trade pay first-class rates, which are the rates usually charged upon the higher classes of goods, the effect of not releasing is quite a serious one from a financial point of view. As a rule the difference between the various classes of freight is but a few cents, and the class above first class is known in railroad language as once and a half first class, or double first class, as the case may be. For instance, a first class rate may be 30 cents, second class may be 40 cents, in which instance the change from a lower to a higher rate involves but 10 cents, but a moving upward from first class to the next step makes the rate \$1. The shipper is thus confronted with a prohibitive rate or the privilege of saying to a railroad company, "I will pay you for transporting these goods, and you can deliver them if circumstances and the peculiar state of negligence now existing upon your line will permit." That such a condition of affairs will be allowed to exist for any length of time is not to be believed. At a period when hard times and radical views as to corporations are very much to the front it is apparently a case of both optical and mental aberration on the part of railway managers to attempt such a palpable injustice. Several years ago an attempt was made to adopt a form of bill of lading which would be non-negotiable, but the storm of protests from shippers led to its abandonment. In the present instance commercial bodies are already bestirring themselves, the Chicago Freight Bureau, a powerful organization, representing local shippers, having decided at a recent meeting to carry the matter before the inter-state commerce commission for a ruling upon the release, and there is no doubt but that the various drug organizations are fully alive to the exigencies of the situation, and will make their influence felt at the proper moment.

Many prominent shippers have refused to sign releases upon the ground that goods belong to the consignee after delivery to a transportation company, and that a release by the shipper would render the latter liable for all damages. Several shippers have notified their customers that they decline to release goods unless specifically instructed to do so, and it is in such cases as these that the retailer is at a loss what to do as his competitor in the same line of goods may have all the advantages over him which a difference in rates would make. This new ruling also practically invalidates a bill of lading as far as its negotiable character is concerned, as no bank or business concern would care to advance money upon a document which expressly stipulates that the goods named therein may be used in a railway bon-fire, and that the owner has no grounds for recovery. The destructive character of railway transportation even when the carrier is made to assume full liability, is well known. What it would be when its "officers, agents or employes" understood that no penalty attached to negligence, is difficult to imagine. Meanwhile there is

a growing suspicion that the whole matter is in the nature of a great big bluff. The different sections of the release are modified by the expression "the said (shipper's name) does hereby release as far as he lawfully may," and it is believed that the words "lawfully may" are peculiarly significant in this case, and may be interpreted to mean that increased tolls will only be collected from people who do not "kick," or until legal complications arise to prevent such collection.

PHARMACEUTICAL EDUCATION IN ENGLAND.

The remarks of Mr. Martin on American pharmacy, recently published in these columns, have, as was to be expected, elicited considerable protest, and there is a desire on the part of American pharmacists for information concerning the regulations governing the practice of the profession in Great Britain and its colonies. In this number is a reply to some of the strictures in Mr. Martin's paper, but for purposes of comparison, it is necessary that the true condition of affairs on both sides of the Atlantic should be known. We know what legal qualifications are required here, but it seems necessary to consider the relative advantages and disadvantages of the two systems. From copies of legal acts and laws in force in Great Britain, and from information supplied by correspondents in England, the following brief summary gives a comprehensive idea of the English situation. We quote a portion of a recent letter from a London friend, who says: "Ireland and England are treated differently, there being distinct laws for each country. In Great Britain the major examination, giving the title pharmaceutical chemist, is optional, since it is not imposed as a qualification by the pharmacy act of 1868, which is the act that controls the sale of poisons. All that the act requires is that chemists and druggists shall pass the minor examination. This was the assistant's examination under the act of 1852, but since 1868 it has been advanced greatly in scope. The minor is strictly in two parts, viz: The Preliminary and the Minor Examination proper. There is no mention of the Preliminary examination in the act of 1868, but assistants, before that time, had to pass the Preliminary and the Minor Examinations, and this remains as the interpretation of the expression occurring in the act. This is a little confusing to any but a Britisher, still, thus it is, the Preliminary must first be passed." The Era will shortly publish a set of examination questions used in the Minor Examination.

Briefly, the following are the qualifications required of British pharmacists: First, he must pass the Preliminary Examination or its equivalent; second, he must have been engaged for three years in practical dispensing; third, he must pass the Minor Examination. The Minor Examination lasts two days.

On the first day every candidate has three hours of practical chemistry and three hours at dispensing and practical pharmacy. If he survive, he is called upon on a second day (at an interval of one to fourteen days) to be examined orally in the rest of the subjects. Written questions are not set. There are two Boards of Examiners, one for England and Wales, meeting in London, and one

for Scotland, meeting in Edinburgh. The examiners are pharmaceutical chemists, generally men known for original work, or as competent pharmacists, with some special knowledge in one or more departments. They are appointed by the Pharmaceutical Council of Great Britain, and their appointments must be approved by the Privy Council, which is a non-political body of the queen's advisers, consisting of parliamentarians, men of letters, science, etc. A representative of the Privy Council attends the examinations to insure that the standard is maintained for the safety of the public. All precautions are taken to maintain the integrity of the board and the standard of qualification. Though a curriculum of study is not compulsory, 90 per cent of the students do attend a school or college of pharmacy. With the exception of the Pharmaceutical Society's school, these are all private ventures. Only a small proportion of students attend evening classes, and six months at the day classes is the average period of study.

It will be seen, therefore, that it depends entirely upon the character of the Preliminary and Minor Examinations whether the British pharmacist be the superior of his American brother. This is a careful comparison of the questions employed by the examiners of England, and the Boards of Pharmacy of the United States alone can demonstrate. On the whole, we believe the questions propounded to the English candidate are a little stiffer than those in this country, particularly as regards a familiarity with Latin and French. It is easier in England to enforce a high standard than it is here, for the United States is an immense country, and conditions governing any business or profession vary within very wide limits, according to the section of country wherein practiced. As careful, reliable dispensers, we believe the American pharmacist has no superior; as a Latin scholar and an expert mathematician he is not always in very high rank, but so far as the safety of the public committed to his charge is concerned, he is as good a man as any other. It will be noticed that in England there is but one independent pharmaceutical school, all the others being, as stated, private ventures. How do these really differ from certain American colleges, which Mr. Martin mentioned as being conducted for the money that they make? It must be admitted that there is a great lack of uniformity in the courses of instruction offered by American colleges and in the character of the examinations conducted by the Boards of Pharmacy, but there is constant striving toward uniformity, and, even as it is, the druggist here has cause to congratulate himself that so high a level has already been attained. The question of what is the proper qualification for the practice of pharmacy is not to be settled by the say-so of one man, nor is the fact that one country has a different standard from another to be accepted as proof that it is the right standard.

CANADIANS WANT PROTECTION.

Not the protection of a McKinley or a Wilson tariff, but of the Canadian druggist against the druggist from the states. England always asserts that what she has and does in any line is better than that of any other country, and the United States is generally selected for purposes

of comparison. She has been shown by revolutionary wars, prize fights and yacht races that her opinions are not always well founded, but she is a stubborn old lady and "convinced against her will is of the same opinion still." She is particularly vehement when education is the topic for discussion, and above the babel of voices raised in strenuous protest, hers is heard monotonously reiterating "Mine is the best." It is not surprising then that her Canadian child has inherited some of the old lady's brag and bluster, and we find Ontario papers deploring the fact that druggists from New York State are allowed to carry on business in the province in competition with the "regularly diplomaed druggists" of the Canadian College of Pharmacy. It is asserted that the Canadian pharmacist is the superior of his New York brother in education and professional qualifications, that Canadian colleges of pharmacy are of far higher standard than those of the United States, and in short the United States druggist is of hardly good enough material to wipe one's shoes upon. To those who really know the relative merits of pharmacy colleges in these two countries this Canadian brag is very amusing, for in matters of pharmaceutical education she is neither fish, flesh nor fowl. We would not assert that Canadian colleges of pharmacy are inferior, but would deny their superiority in any particular to the best of those in the States. Some people have a suspicion that the New York druggists are a little too good to please the provincial, and that all this talk about faulty education, and low standard, and easy examinations in the States is to disguise the real reason for alarm. We would suggest to our Ontario friends that all trouble and "invidious comparisons" would be avoided if they would refuse, as is done in some of the states, to recognize any diploma or certificate whatsoever. Find out what a man knows, rather than believe his diploma's statement of what he knows. Druggists from New York State would not object to such a test undergone in company with the Canadian druggist.

PRACTICAL EXAMINATIONS BY BOARDS OF PHARMACY.

A practical test of a candidate's proficiency in compounding prescriptions is being enforced by some boards of pharmacy and is proving very satisfactory. Illinois and Minnesota have inaugurated this feature in a very complete way and it is bearing good fruit. There is great lack in this one particular in the scheme of examination in the various states, a defect repeatedly pointed out but difficult of correction. The test is one which alone will demonstrate whether the candidate be so generally and particularly posted as his written examination papers afford presumptive evidence he is. Processes, manipulations, principles may be fully described on paper, yet the writer prove sadly deficient when put to practical test. A Minnesota paper, after relating that of a class of 45 but 17 passed this practical examination, says:

"Some of the rejected work was very bad. In one case a test of 2-grain quinine powders showed that they actually weighed 8 grains. Some emulsions were more like puddings than the perfect article, and boxes of pills were like clay marbles."

Surely to require demonstration of fit-

ness in this direction is within the province and is the duty of the examining board, which must decide the registration or rejection of candidates for pharmacists' certificates. We believe every board of pharmacy should adopt such a requirement, but this cannot be done if a board holds its examinations in different cities throughout the state. The paraphernalia necessary cannot be transported from place to place, it must constitute the equipment of rooms specially fitted for the purpose. The reason the boards are peripatetic (if we may be allowed this use of the term) is to afford the most eligible opportunities to candidates in distant localities for assembling in accessible meeting places. But this reasoning is of little weight when considering the necessity for determining the applicant's real proficiency as a pharmacist. The leading colleges of pharmacy are recognizing the value of the instruction afforded in the dispensing laboratory, and all colleges and boards must adopt the system in order to best fulfill their functions. England heats us in this particular.

Since the metric system has been promulgated as official in the United States Pharmacopodia it may be useful to some of our readers to recall the fact that the U. S. fractional silver currency bears a little relation to its various units, a relation that has been made designedly and by law. The half dollar equals 12½ grams, the quarter dollar 6½ grams and the dime 2½ grams. Eighty half dollars are equal to 1 kilogram. You must have some money, though, to verify these statements.

A few of the particular features of the present issue to which we desire to direct attention are the comprehensive papers upon vaccination and vaccine virus, the manufacture of concentrated preparations for subsequent dilution, and advertising by retail druggists. Each of these treats of a subject which is closely related to a legitimate branch of the druggist's vocation, and will undoubtedly be received with appreciation.

In Germany the law requires a heavy license fee from a merchant engaged in any line of business before he can engage in another branch. Application of this principle in the United States would make it hard for the department stores, and thus in some measure prevent their inroads upon the drug trade in the way of cut-rate drug departments. Wouldn't it be a good thing were this rule existent here?

REMOVAL OF PAINT SPOTS.—Here are a few hints from Painting and Decorating. For light colored goods use ether alcohol or gasoline; the former, however, is always to be preferred. If the goods are dark and the paint has not had time to soak in the cloth much, take a piece of the same kind of cloth and rub over the paint spots briskly. The effectiveness of this rubbing cloth to cloth treatment will surprise and please the most incredulous. If the spots are dry and hard, ammonia and water is probably the most active and effective liquid that it is possible to use. But it is a terribly harsh preparation to use on cloth of delicate texture, and on goods of dyed color it would be unsafe to use it. Such cloth should be treated with alcohol or gasoline.

[Written for the Era.]

CHEMICAL DIVISION, U. S. DEPARTMENT OF AGRICULTURE.

By H. W. Wiley, Chief Chemist.

The work of the Chemical Division of the Department of Agriculture is not well understood even by the educated and reading public of the United States. The general idea of its function is, that it is to assay gold and silver ores for members of Congress and other high officials and to analyze mineral waters for the purpose of giving certificates to be used by the proprietors for advertising purposes. In fact, this last supposed function of the division is the one commonly accepted. It would be a surprise to persons not familiar with the facts to see the number of applications received by the Chemical Division for certificates to be used in advertising. Almost every variety of good and bad materials is represented in these requests. The makers and venders of baking powders, maple molasses, condiments, lards and other food products do not seem to realize the fact of the impropriety of any department of the government becoming a sponsor in any way for any of their goods. It is not because the article which it is desired to submit to the favorable notice of the public is not wholesome and nutritious that the department withholds its certificates, but because of the impropriety of giving to any particular person any advantage in the market over his competitors in the same line. It is true that the name of the department, and of its officials, has been used from time to time in advertisements, but in so far as the Chemical Division has been concerned it has always been done without the consent or knowledge of the division or its chief, and as soon as such uses have been discovered respectful protests have been filed and in one or two cases even stronger language has been used in order to cause the withdrawal of the name of the chief chemist from such advertisements.

First of all, let it be understood that it is not the object of the Chemical Division to make analyses for any commercial purposes whatever or to furnish any kind of certificate to be used for advertising purposes. Again, let it be understood that it is not the object or purpose of the Chemical Division to make examinations of minerals for the precious metals or for any purpose except for fertilizing materials, nor of mineral waters, nor of waters of any kind except for irrigation or other agricultural purposes, nor of clays with respect to their use in pottery, with the possible exception of the manufacture of agricultural drainage tiles.

Perhaps a broader statement would be of advantage to many persons who labor under the mistake of thinking that the Department of Agriculture, in its Chemical Division, was established for the purpose of making private analyses of any description. In the earlier days, before the establishment of the State agricultural experiment stations, it was the custom of the department to have analyses made of fertilizers, soils and agricultural products from different localities. Since the establishment of the agricultural experiment stations, and their endowment by direct grant of funds from Congress, it is the uniform custom of the department to refer all requests for such analyses to the respective State stations. It is easy to see that the small force of the Chemical Division would be totally

inadequate for the accomplishment of all the analytical work presented, even when that work is clearly and distinctly related to agricultural matters.

Properly stated, therefore, the Chemical Division of the Department of Agriculture has for its objects, first, research respecting agricultural chemical matters which are not well understood or which promise good for the future; in the second place, the investigation of the best methods of chemical analysis with a view to unifying methods and bringing the practice of this and foreign countries into harmony; third, the investigation of the possibilities of great agricultural industries, resting primarily on chemical research.

As an illustration of this third point may be given the work of the department in the last few years in investigating the possibility of establishing an indigenous sugar industry. This work primarily rests upon the acclimatization and development of sugar producing plants, on the nature and quality of the soil on which they are grown and the fertilizers which are employed in their growth. These researches, as is easily seen, rest largely upon chemical investigations and therefore these problems have been properly, I think, referred to the Chemical Division.

In the fourth place, the Chemical Division investigates subjects relating to the effect of the adulteration of foods upon public health and the profits and rights of the farmer. There is also a large class of miscellaneous work, not clearly defined and sometimes of a doubtful nature, which naturally falls to the work of the division.

From a pharmaceutical standpoint, perhaps the most interesting work of the Department of Agriculture is that which relates to the adulteration of foods. This work has been carried on in a systematic manner for seven or eight years. The principles upon which it rests are clearly outlined in Part I of Bulletin 13, relating to dairy products and their adulteration. In the preface to this work it was stated that the object of the work was "to determine the best methods of analysis of the various products in question, and all the recent improvements in analytical methods have been thoroughly tried, and those which have given good results have been used in the analytical work which has been done." This statement does not fully cover the scope of the work, for not only have investigations of the best methods for the examination of foods been made, not only with dairy products and with all the more common foods, but also all these methods are given in detail and the results of their work compared. In this way the bulletins on food adulteration not only become valuable aids to the pharmacist or physician and the public hygienist, but also provide for the chemist a more or less complete bibliography of all the analytical methods which are used in the examination of such products and to a certain extent a complete resume of all the literature affecting the subject from either an analytical or hygienic point of view.

Eight parts of Bulletin 13, comprising 1,167 printed pages, have been published and the remaining parts of the work, as outlined, will probably comprise four or five bulletins more, giving a work having a total number of from 1,600 to 1,800 pages. A typical number of the series is part 8, relating to the adulteration of canned

foods. In undertaking the study of canned and preserved foods it was the original intention to have the whole of the work included in one publication, forming one part of Bulletin 13. The magnitude of the work, however, was found so great as to compel a change in this plan and therefore the part of the investigation relating to canned vegetables was included in a separate publication, namely, part 8 of Bulletin 13. This bulletin has the greatest interest for pharmaceutical readers. It contains a complete bibliography of the subject of the introduction of copper and zinc into canned vegetables for the purpose of preserving their green color. The whole question of the contamination of goods preserved in cans with lead and tin tops is also thoroughly discussed. It is shown that in many of the tins used in this country more than 10 percent of lead is found and an alloy and vegetables preserved in such tins are certain to be more or less contaminated with lead.

The question of salicylic acid has also been thoroughly discussed, both in part 3, relating to fermented beverages, and in part 8, relating to canned vegetables. The literature referring to salicylic acid in foods is pretty thoroughly covered in these two bulletins. No dogmatic assumption of authority in regard to the hurtfulness of salicylic acid, or of copper, or of lead, is found in the bulletins, but the statement of evidence both in favor and against the use of these materials is given as fairly as possible. The author of a public bulletin has at least one advantage over almost any other writer; from the independent position which he occupies he is able to enter into a free and impartial discussion of the subject. The private author of scientific treatises is often interested particularly, and sometimes commercially, in the subject of which he writes and is therefore subject to more or less bias. Take, for instance, the discussion of the relations of oleomargarine to public health and to the fraud upon the producer of butter. The chemist who is employed by an oleomargarine factory would doubtless be biased in favor of giving to oleomargarine every advantage in the discussion; on the other hand, a chemist in the employment of a dairy company would take the other extreme; while the chemist writing as a government official, would be in a position to judge impartially in regard to the merits of these foods. This position renders the following paragraph, found on page 17 of part I of Bulletin 13, possible:

In regard to the wholesomeness of artificial butter or oleomargarine "there is a wide difference of opinion. It is undoubtedly true that a great deal of artificial butter has been thrown upon the market that has been carelessly made, and therefore harmful to the health. On the other hand a butter substitute, made carefully out of the fat of a perfectly healthy bullock or swine, is not prejudicial to health." Again, on page 24: "While it is true that chemical analysis and certain digestive experiments have not hitherto shown that pure butter possesses any marked superiority over butter substitutes as a food, yet it must not be forgotten that butter has a much more complex composition than lard or tallow or cotton seed oil; that it is a natural food, and doubtless possesses many digestive advantages which science has not yet been able to demonstrate."

It seems to me that the above quotations pretty well illustrate the true scientific attitude which should be taken on a subject of this kind. In the first place, it must be clearly admitted that first class oleomargarine or butterine, when properly made from healthy animals, cannot be considered as prejudicial to health. On the other hand, pure butter fat has advantages not possessed by its substitutes, and especially in the case of invalids and dyspeptics it doubtless has decided advantages which are not clearly demonstrable by chemical and digestive experiments.

In the results of the analysis of canned goods for copper an illustration of the work of the division in its relations to public health may be found. Opinions are divided in regard to the wholesomeness or unwholesomeness of added preservatives. The great weight of testimony, however, is to the effect that while these substances in small quantities are not injurious to health, yet the continual use of them even in such small quantities may become prejudicial. It is a fair conclusion from the data collated in part 8, Bulletin 13, that the use of added preservatives in canned vegetables is objectionable. This contention, however, is not strong enough to warrant the recommendation for an absolute inhibition of these bodies. The consumer would be sufficiently protected if the law should require that on each can of preserved vegetables or other foods a statement should be found as to the character of the preservative used and the amount of it which has been added. The consumer and his medical adviser are thus properly forewarned of the danger which they may encounter in the use of such foods, and if in the face of this announcement they see fit to continue the use of these goods, they cannot hold the guardians of public health responsible for any ill effects which may follow. The same conclusions which are drawn in regard to added preservatives can be stated respecting the use of copper and zinc for greening goods. The occasional use of a small quantity of a copper or zinc salt, it must be allowed, can be practiced without practical injury to health; on the other hand, the continual and regular consumption of even small quantities of these materials must be regarded as at least prejudicial. If the cans containing greened goods are properly labeled, then the responsibility of the use of these materials rests upon the consumer rather than upon the packer.

Interesting results in regard to the digestibility of canned goods were also obtained in the course of the investigation. A general review of the experiments made in artificial digestion leads to the conviction that the process of canning, especially where preservatives are employed, such as salicylic acid and sulphites, tends to diminish the digestibility of the albuminoid and allied bodies.

Strange to say, the attitude of the department in regard to these matters has been misunderstood by most of the packers in whose goods preservatives have been found. Almost without exception they have vehemently denied that any such preservatives are ever used in their factories. In all cases where such denial has been made in proper form to the department a re-examination of the samples has been made. In most cases portions of the sample having been preserved. In every case the original deduction from

the analysis has been sustained. In several cases, in fact, in all where a sufficient quantity of the material was still on hand, the packers have been asked to send a reputable chemist of their own selection to our laboratory and we have promised to allow him full facilities to make the investigation for himself. In no case has our offer been accepted. The attitude of packers towards the work of the department in this respect is strikingly portrayed in letters from them published in the Inter-State Grocer. The general conclusion of the packers is that the chemists were totally incompetent or moved wholly by prejudice, and that the discovery of salicylic acid in canned goods was purely a myth of the imagination and that the persons who made the discovery are totally unfit to occupy any official position. One packer writes: "We denounce the government analysis as unjust, false and damaging." Another says: "It is not true that salicylic acid was found in our asparagus, for the reason that we have never had the article or any other kind of preservative in our factory." A French packer writes: "I went round Bordeaux and saw some of our best packers and we had much fun about the knowledge of Dr. Wiley as a chemist, but no one thought it was worth an answer. You know perfectly well that salicylic acid is forbidden in France, but it is true that some packers use it in small quantities and run their chances. * * * As to myself, I consider all this a big 'humbug' and believe Mr. Wiley to be a pretty poor chemist in the matter, or a big drummer—whatever the situation that he occupies may be."

In several instances long affidavits have been filed to the effect that no preservatives of any kind, especially salicylic acid, have been used by the packers in whose goods they had been found. We make a uniform reply to communications of this kind, namely, that when it comes to believing the evidence of a chemical reaction or that of an affidavit, the chemist is compelled to choose the former.

The same kind of experience was had with the bulletin relating to the adulteration of honey. Forty-four per cent of the liquid honey which we purchased in the open market in the United States was found to be adulterated, mostly with glucose. In one instance where samples of honey bearing a certain label were found to be adulterated the packer denied emphatically that any adulterated honey had ever been used. Afterwards he admitted that he bought honey by the car load and when pressed for a description of his test for its purity replied that he relied wholly upon the taste, and that it was impossible for him to be deceived and that he could tell any honey with which a portion of glucose had been mixed. Evidently there must have been cases where the expert had failed to apply the test, as many samples bearing his brand were found to be adulterated. These matters have been mentioned not for the sake of complaining of the opinion of the packers, because we believe in nearly all cases they make the denial in perfect good faith, but it is possible that these adulterations may be practiced without the proprietors of the institution knowing anything about it. It is barely possible also that a person who would use these preservatives clandestinely and who practices these adultera-

tions, might not hesitate to publicly state that he never did any such thing. While the work of the Chemical Division in respect of its examinations of foods is of much more particular interest to those engaged in pharmaceutical pursuits, yet it by no means covers the whole or even a large part of the ground which is occupied by the activity of the division.

One of the most important works which has been accomplished by the Chemical Division has been in the way of the promotion of uniform methods of analysis of commercial fertilizers and agricultural products. The Chemical Division has done this indirectly by the relation which it has held to the Association of Official Agricultural Chemists of the United States. The Chemical Division has published the bulletins of this association for the past ten years and the association has formally recognized the fact that a large part of its usefulness has been secured by this co-operation between it and the Department of Agriculture. As an illustration of what has been accomplished in this direction, I may call attention to the proceedings of the tenth annual convention of the association, held at Chicago, August 24th, 25th and 26th, 1903. This is a bulletin containing 218 pages of printed matter, beside the introduction and Index, making nearly twenty pages more. It comprises the reports of the year on the comparative analyses of phosphoric acid, of potash, of soils, of dairy products, of feeding stuffs, of fermented liquors, and of sugars, molasses and honeys. First of all comes, in each case, the statement of the reporter on his particular subject. These reporters are appointed the year before and are charged with certain duties by the association, especially with the preparation and distribution of samples to chemists who are willing to take part in the comparative work. They receive the results of these analyses, collate them, compare them and get them in form for presentation to the association. They call especial attention to defects in methods of analysis and propose what in their opinion should be the proper amendments to be adopted. Then follow papers on the theme presented by the reporter and discussions thereof. Finally, the association adopts what, in its wisdom, seems to be the best of the amendments offered and formulates a scheme for the guidance of official agricultural chemists during the coming year. The result of the work of this association has proved of incalculable benefit to the chemists of the United States and all parts of the world. Our methods have become standards not only in this country, but in many parts of Europe. One of the objects of the Association is to obtain co-operation from other countries in securing uniform methods of analysis and an international congress on this subject has been called to meet in Brussels in August, 1904.

As another illustration of the work of the division let me call attention to what has been done in the promotion of the culture of sugar producing plants in the United States. Under the charge of this division, experimental stations have been established at Sterling and Medicine Lodge, Kansas, for the scientific culture of sorghum and the study of the best methods of making sugar therefrom. As an illustration of the magnitude of the work accomplished in such stations I

call attention to the fact that nearly 150,000 analyses have been made during the past two years. These analyses consist not only in the determination of the percentage of sugar by the polariscope but also in many cases of the determination of the reducing sugars and the solids not sucrose. Another experiment station, in charge of this division, has been established at Schuyler, Nebraska, for the purpose of studying the best methods of improving the sugar beet. The best and most approved forms of agriculture are practiced, the beets are grown under perfect control and subjected to frequent and thorough analytical studies. The best of the beets are preserved in silos for the production of seed. During the spring each of the beets which it is proposed to grow for seed is subjected to analysis, a diagonal core of pulp being removed from the beet for that purpose. This does not destroy the germinating power of the beet. The analysis of the pulp permits a classification of the beets into three grades. Those, for instance, which contain the highest amount of sugar, say, above 18 per cent, form the first grade; those containing from 15 to 18 per cent the second grade, and those containing from 12 to 15 per cent the third grade. All beets showing less than 12 per cent of sugar are rejected. The number of analyses made at this station during the past two years was about 40,000.

Another station, under the charge of the Chemical Division, has been established at Runnymede, in the center of the Florida peninsula, for the purpose of investigating the possibilities of the growth of sugar cane in that region, together with studies of cassava and tobacco as collateral pursuits. This station has only recently been established and very few analyses have been made in connection with its operation.

The miscellaneous determinations, which it is impossible to classify in a brief article of this kind, probably amount to 2,000 or 3,000 analyses per year. In the matter of nitrogen alone 3,000 to 5,000 combustions are made each year. No detailed record is kept of each individual determination, but taking into consideration the work of the experiment stations above mentioned, and the work in the laboratory itself, it is safe to say that not less than 100,000 different analyses are accomplished during each year by this division. The usual number of chemists employed at the home laboratory is from twelve to fifteen, but during periods of special activity, as in the case of the sugar analyses mentioned above, large additional numbers of chemists are employed temporarily.

At the present time the division is engaged chiefly in the analysis of all the samples of California wines which were exhibited at the Chicago Exposition. This is supplementary to the extensive analyses of the beers and ales which were made of exhibits at the same place. These are also parts of the work of the Chemical Division which will prove of interest to pharmaceutical readers.

I have endeavored to comply briefly with the request of the editor for this review of the scope of the work accomplished by the Chemical Division. I am deeply conscious of the impossibility of properly presenting a full idea of this work in so brief a space, but I trust I have accomplished something in this line.

[Written for the Era.]

THE ECONOMY AND CONVENIENCE OF PREPARING IN CONCENTRATED FORM FOR SUBSEQUENT DILUTION SOME OF THE EXTENSIVELY USED U. S. P. PREPARATIONS.

By, F. J. Wulling.

Pharmacists doing a fair or large business need to make, either very frequently or in very large quantities, the preparations for which there is a large demand. If very frequently much time is spent, a small quantity requiring nearly as much time and labor for preparation as a large one does; large amounts require the investment of more capital for the greater quantity of material used, which in the case of the tinctures or spirits containing much alcohol is of considerable importance. Making, say in summer when it goes well, 4 gallons of tincture ginger at one time to last the season, will involve an expenditure of more than ten dollars for alcohol before there is any return. Making four times one gallon during the season as required incurs less expenditure of money at one time, but a greater expenditure of time and labor in the aggregate. The latter method requires less capital to do the same amount of business, but more time and labor, and these usually offset the pecuniary advantage. Now the real economy is in combining, where it is possible, the advantages of the two methods, and this may be done in many cases by making the preparation several times stronger in active ingredient and diluting with the proper solvent or menstruum as needed. Instead of making one gallon of a twenty per cent tincture of ginger, one gallon of an eighty per cent one may be made with no greater expenditure of time and work. The latter will contain as much ginger or require as much as do four gallons of the twenty per cent preparation, which of course necessitates a greater expense for the drug at one time, but this is more than offset by the saving involved in not needing the other three gallons of alcohol until there is a demand for the tincture. In other words, the time intervening between the buying and selling of three gallons of the tincture out of four is reduced to a minimum. This is one of the secrets of business success, to have the least possible amount invested and to turn that over quickly.

Some of the preparations of the U. S. P., a goodly number, it is not expedient to have in concentrated form, either because their limited use does not warrant it, or because the nature of the preparations or some of their ingredients do not permit of it. In the writer's experience the method has been found expedient and economical in many cases, and it is the purpose of this paper to give some of the instances in which it is applicable.

It is perhaps best to give formulae adjusted to the U. S. P., 1890, which have been in use in the writer's laboratory.

TINCTURE ARNICA FLOWERS.

Arnica flowers in 20 powder 800 Gm.
Diluted alcohol enough to percolate 1,000 Cc.

Label product distinctly; "Concentrated Tincture Arnica Flowers, 80 per cent." "To make U. S. P. tincture, mix 1 part with 3 parts by measure of diluted alcohol."

COMPOUND TINCTURE OF CARDAMOM.

Cardamom 80 Gm.
Cassia cinnamon 80 Gm.
Caraway 40 Gm.
Cochineal 20 Gm.
Glycerin 200Cc.
Diluted alcohol to percolate 1,000 Cc.

Label: "Comp. Tinct. Cardamom, Quadruple Strength." "To make U. S. P. Tincture, mix one part with 3 parts by measure of diluted alcohol."

COMPOUND TINCTURE OF CINCHONA.

Red cinchona 400 Gm.
Bitter orange peel 320 Gm.
Serpentaria 80 Gm.
Glycerin 800 Cc.
Alcohol 1,700 Cc.
Water 150 Cc.

Mix half the glycerin with the alcohol and water, and percolate until 2,000 Cc. of product are obtained, adding alcohol and water in above proportions as long as necessary, and remainder of glycerin last. Label: "Comp. Tincture of Cinchona, Double Strength." "To make U. S. P. tincture add one part to one part of a mixture of 850 alcohol and 75 water by measure." It is not expedient to make this more than double strength.

COMPOUND TINCTURE OF GENTIAN.

Gentian 400 Gm.
Bitter orange peel 160 Gm.
Cardamom 40 Gm.
Alcohol, 3 parts by measure.

Water, 2 parts by measure, enough to percolate 1,000 Cc.

Label: "Comp. Tincture Gentian, Quadruple Strength." "To make U. S. P. tincture, add one part to three parts of a mixture of three parts alcohol and two parts water, all by measure."

TINCTURE OF RHUBARB.

Rhubarb 400 Gm.
Cardamom 80 Gm.
Glycerin 200 Cc.
Alcohol, 5 parts by measure.

Water, 2 parts by measure, enough to percolate 1,000 Cc.

Label: "Tincture Rhubarb, Quadruple Strength." "To make U. S. P. tincture, add one part to three parts of a mixture of alcohol 20, water 8 and glycerin 2 parts by measure." In the above the proportion of alcohol is very slightly greater than in the U. S. P., this being necessary to prevent at times the deposition of chrysophanic acid.

TINCTURE OF GINGER.

Ginger 800 Gm.
Alcohol, enough to percolate 1,000 Cc.

Label: "Tinct. Ginger, Quadruple Strength." "To make U. S. P. tincture, add one part to six parts of alcohol by measure."

CAMPHOR LINIMENT.

Camphor 400 Gm.
Cotton seed oil 600 Gm.
Label: "Camphor Liniment, Double Strength." "To make U. S. P. liniment, add one part to one part by weight of cotton seed oil."

SPIRIT OF PEPPERMINT.

Oil of peppermint 400 Cc.
Peppermint, bruised 40 Gm.
Alcohol, enough to make 1,000 Cc.
Label: "Spirit Peppermint, Quadruple Strength." "To make U. S. P. spirit,

add one part by measure to three parts by measure of alcohol."

SPIRIT OF LEMON.

Oil of lemon, 300 Cc.
Lemon peel, 200 Gm.
Deodorized alcohol, enough
to make 1,000 Cc.

Label: "Spirit of Lemon, Quadruple Strength." "To make U. S. P. spirit, add one part by measure to three parts by measure of deodorized alcohol."

SYRUP OF WILD CHERRY.

Wild cherry, In No. 20
powder 300 Gm.
Sugar 700 Gm.
Glycerin 150 Cc.
Water, enough to make, 1,000 Cc.
Label: "Syrup Wild Cherry, Double Strength." "To make U. S. P. syrup, add one part to one part of simple syrup, both by measure."

In making these concentrated preparations the directions of the Pharmacopœia should be followed. There are probably other preparations which might profitably be made in this manner—the above have been found by trial and experience to be, in their finished state, in no wise different from those made in the usual way, the color, strength, stability, etc., being the same. The method is not applicable in making Syrup Ipecac or Syrup of Tolu. The objection is that unless carefully labeled the concentrated form of the preparation may inadvertently be dispensed for the diluted. To obviate any such error the concentrated preparations may be grouped and a special shelf assigned them in the stock room, or cellar. They should be distinctly labeled, and in a manner, perhaps, as follows:

Tincture Ginger,

QUADRUPLE STRENGTH.

To make U. S. P. Tinct. add ONE part to THREE parts ALCOHOL by measure.

Some may possibly object to this method of preparing the above tinctures because a menstrum which will exhaust a drug in the preparation of a tincture will not always wholly extract the proximate principles of a drug in the preparation of a fluid extract. In preparing the above tinctures this fact was had in mind. It was found that the extractive in the concentrated tincture and in the tincture made from the latter was exactly or closely approximate to that in the tincture prepared in the usual way. The majority of a number of physicians consulted stated as their opinions that the difference, if any, in the therapeutic action of a tincture and fluid extract made from the same drug in proportionate doses was so slight (irrespective of the stimulating action of the alcohol present in larger proportions in the tincture), as to have escaped their notice. The others declared confidently that there is no difference. Several physicians, after having tried the above tinctures, sanctioned their use in their prescriptions. In the process of percolation properly conducted, a menstrum is supposed to exhaust a drug until all the menstrum, is saturated, or until all the soluble principles of the drug are extracted. All, or nearly all, of the official fluid extracts are not saturated, hence the drug is exhausted at a point when the menstrum is still capable of taking up more soluble matter. Of course it requires more skill to make a fluid extract than it does to prepare a tincture.

It is a question not yet decided whether a menstrum retains its solvent powers for all of the proximate principles of drugs as it increases in saturation. This question and that of the expediency or otherwise of making tinctures from fluid extracts is now in process of investigation by the writer, and will form the subject of a subsequent paper.

VACCINE VIRUS.*

By H. M. Alexander.

Nearly a century has elapsed since Dr. Edward Jenner, the discoverer of vaccine virus, inoculated his first patient, and proved to the world the efficacy of his theory of vaccination, as the preventive of that dreaded disease, small-pox. As has always been the fate of every new theory, invention or innovation in its infancy, vaccine virus met, for a time, with violent opposition, yet the learned Jenner lived to be feted in the streets of London, his path strewn with flowers, and he was finally tendered a testimonial of ten thousand pounds, by an act of Parliament, in recognition of the great boon he gave to mankind. But important discoveries are slow of adoption, and owing to bigotry and superstition, are seldom appreciated fully in the age of the discoverer. The evolution of vaccine virus was then necessarily slow. Great difficulty was experienced in procuring vaccine from the animal, and the use of the crust, taken from one person and applied to another, which is known as humanized virus, or vaccine, was adopted. This method was continued for many years, when it was discovered that a great number of diseases, especially skin diseases, and the most vulgar ones to which the human system is heir, were being conveyed from arm to arm.

We shall pass over the history of the period which elapsed from the beginning of the nineteenth century until the propagation was begun in America in 1870, for the history of this period, as we glean it from the writings of many authorities, is very conflicting. The efficacy of the virus as a protective agent was thoroughly proven in many instances, while there were others that left some doubts as to its ability to protect against the dread disease, small-pox. Our own experience has forced us to believe that these great difficulties in protective power were largely due to the fact that humanized virus was much used, which in these cases of failure had greatly degenerated.

Sources of American Propagation.—Whether true cow-pox was found among the cattle frequently prior to 1866 is not certain, but in that year a case was found at Beaugency, France, and it was from this strain that bovine virus was imported into America, and its propagation from heifer to heifer introduced into the United States in 1870, by the late Dr. Henry A. Martin. In the decade which followed, the propagation of vaccine virus was begun in various sections of the country. The methods employed, however, were of the crudest nature, and much of the propagation of a dangerous character. In many instances, propagation is still carried on in unclean stables, located in filthy city alleys, where the virus produced is of necessity subjected to dangerous contamination from the surrounding filth; the cattle are usually procured from city stock yards;

heifers, generally, but frequently decrepit old cows that have shown some organic weakness. Only an external examination of them can be made, and naturally disease bearing tuberculosis is not always avoided. As a result, the greater portion of the virus procured in this way, instead of affording protection against small-pox, merely produces ulcers of a dangerous and most painful nature. Dr. Martin discovered a case of cow-pox at Cohasset, Mass., in 1880, but being sensitive to unjust criticism, he did not continue its propagation as a separate strain. In 1885 a case was accidentally discovered in Eastern Pennsylvania, and investigated at the time by Dr. Wm. Welch, Professors L. E. Sayre and F. E. Stuart, of Philadelphia, Mr. C. A. Jeltnish, and Drs. Itoland and Musser, of Lancaster. This is the source of the greater portion of the bovine virus now being produced. The question of cow-pox being small-pox in the cow or a distinct disease, must pass by for want of time.

Location of Vaccine Establishments.—It is important that an establishment for the propagation of bovine virus should be located in the open country, where the advantages of pure air and perfect cleanliness are possible, and where every possible sanitary condition can be had. The buildings should be erected especially for, and devoted exclusively to, the propagation of bovine vaccine virus. They should be models of perfection and cleanliness. Ample room should be given, that no crowding of cattle be called for, while the water supply should be well filtered, and absolutely under the control of the propagator. The operating should not be done in the stables, but should be in a spacious room, well ventilated, free from filth of every description, and perfectly dry, for dampness is an avowed enemy of vaccine virus. The stables wherein the cattle are housed should be clean, pure and entirely free from foul or impure air.

The Proper Selection and Preparation of the Cattle.—Instead of buying cheap, diseased or decrepit cattle from city stock yards, the better plan is to rent heifers from one to two years of age, being reared by the farmers of the surrounding country for their future milkers. This enables us to use generations of the same stock, and therefore know all about them, giving the advantage of learning of the existence of any hereditary diseases that might naturally be overlooked in the most careful examination of the animal itself. When the heifers are brought to the farm, the first thing is to give them a close examination, then place them in the stables, groom carefully and feed on bran mashes, until it is determined they are ready to become subjects. They should then be led to the operating room and fastened. The method of this fastening differs greatly, but the one I employ has proven by far the most satisfactory. By a simple mechanical arrangement, the animals are easily turned over, resting on the strong portions of the ribs, near the vertebral column. They rest easily on the upholstered tables and do not struggle, while all is done in a manner which preserves them from excitement. The inner portion of the flanks, back and above the udder, are then well shaven, and inoculated with vaccine taken from a former subject. This portion of the body is selected, as it is the easiest to be kept clean, and does not chafe. In some establishments the udder is select-

*Read at the regular meeting of the Philadelphia College of Pharmacy and contributed to the Era for publication.

ed, but experiments have conclusively proven that the ilder is too warm a location, and usually results in confluence and malignancy. The abdomen, which is also sometimes selected, offers the same objection, as the animal cannot lie down to rest without lying on some of the vesicles and developing excessive heat. After the inoculation, the heifers are taken to specially prepared stalls, where they are cared for and closely watched for an average of seven days and nights. When the vesicles are fully developed, the animals are returned to the operating room, the crusts are then removed with the handle of a scalpel, and the vesicles are thoroughly cleansed by sponging, and all foreign and impure matter removed.

Preparing the Points.—The Ivory points which are to receive the lymph which is now exuding from the vesicles should be sterilized. They should then be placed in clamps of fifty each, so that the operator is not obliged to touch the points with his fingers. The points are coated with a camel's hair brush with which the operator absorbs the virus as it exudes from the vesicles. The points are coated twice with the virus of two animals. The vesicles should not be irritated by the repeated application of the point to the surface, as is the case in most establishments, and which causes them to exude much serum, while the repeated handling of each point causes great danger in the way of septic poisoning. Besides this, when fifty points in one of these clamps are coated with one and the same brushful of virus from one animal, and recoated with another brushful from another animal, they will all be alike, which is not the case if the vesicle is irritated by a repeated application of hundreds of points to the tender surface. They should be carefully inspected, packed in glass, and bear the label of the propagator. Unscrupulous propagators do not, as a rule, label their goods, but conceal their identity, which should always be a good reason for discarding them.

Selling the Points.—Rate cutting and the great clamor of the cheap druggists, or the demands of sharp competition, have caused Ivory points coated with muclage to be placed upon the market at a very low figure, thus driving the real article out for a time. These knives, then finding that the total failure of their goods gave them much trouble, and that the druggist returned to the legitimate ones, added to their muclage croton oil, which causes a vesicle to form. The patient tells the physician that his arm is sore, and he, accepting the statement, believes the virus to have been all right, while the fact that it acts so quickly proves its worthlessness.

Cause of Failures.—This brings us to the cause of failures being reported, not only where there have been actual failures, but where the physicians have failed to wait long enough before making their reports. Not only do failures certainly result from the use of impure materials, but also occasionally from those of good source. Some few cases are insusceptible, but not many. Secondary vaccinations fail because they have been previously vaccinated, and are still protected. Other failures, even in primary vaccinations, are sometimes due to the fact that the virus was shipped in an over-heated car and hence spoiled in transit. And a still more frequent cause is that the goods

are exposed to excessive heat or moisture in the office or store of the druggist, or by the physician carrying it in his vest pocket. It can be guaranteed for sixty or ninety days, for vaccine is not injured by age as frequently as is generally supposed, if kept in a cool, dry apartment. In fact, we have sent it to China, Hindoostan and Palestine with success. Many physicians fail in consequence of their method of operating. We do not want to say that our method of vaccinating is the best, but we will give what we have found to be the most successful manner of proceeding, and also why we think others have failed.

Our plan is to scarify the part thoroughly by scraping off the scarf-skin, and scratching the surface, thus abrading, in two directions, roughing it, so as to get the lymph retained close to the mouths of the absorbent vessels. The portion scraped should not be too large, as too large a surface often results in great violence, or an ulcer is produced where a simple vaccination was intended. We touch one side of the ivory point in a drop of water, shaking all possible off again, then apply it by rubbing it well upon the scarified surface, depending largely for our moisture upon the amount of serum which exudes from the scarification to dampen it, and aid us in removing the virus from the ivory point. Often this serum, with the water we have used, is excessive, when we can readily form a paste by the use of the other side of the ivory point which was not dampened in this manner. We are certain of getting a sufficient number of vaccine corpuscles within reach of the mouths of the absorbent vessels, and to finish the operation we gently prick, or scratch, the arm with the ivory point we have just used. Many physicians use too much water and are unable to form a paste, the little corpuscles floating off, and being very glutinous, adhere to the skin, the physician thinks he has gathered them up, and finishes by getting all he can upon the scarified surface, but does not succeed in getting much else than the serum; the absorbent vessels exhaust themselves absorbing this material, and fail to get in any of the corpuscles required. Again, we have known upon paste, when not finished by pricking it in, to have dried as a varnish beyond the reach of the absorbents, which had been closed by the rubbing process. Another cause of failure is that hosts of physicians clamor for colorless points, forcing the propagator to give them as little as possible in order to keep away from color, and then they use one point for two persons, when it was only intended for one.

Violent Results.—Violent results occur from the use of lymph containing flth, the use of irritating drugs, and the use of virus that has been removed from the animal at the wrong time, for it should be taken early. They also occur from the use of cattle that are too old, which yield a great deal more virus, but which is unnecessarily strong and irritating. Again, the violence may result from the neglect of the physicians to cleanse the arm prior to the vaccination, or the use of an unclean lancet; that is, one used continuously, without being disinfected. (The best way to disinfect a lancet is to dip it into alcohol after each application, and then touch it to a flame.) But a more frequent cause of violent arms

comes from the practice of dressing the arm, after the operation, by means of cotton and adhesive strips. There is not the least doubt but that this imprisoning, as it were, is causing the most mischievous results, and often death. We emphatically say, keep the arm loosely clothed, put no dressing upon it, unless it is a protection shield properly made, and advise the patient to use the limb as little as possible, and keep it clean. With good vaccine and the proper care you will have very few bad cases, unless you can find a very marked syphilitic history in your patient. Our experience has proven that syphilitic families with a decided history have shown a strong tendency to violent action.

To sum up the dangers, we might say that they come from the improper selection of cattle; from the filthy condition of the establishment in which they are kept; its dangerous location; the plan of procuring virus by pressure, and to carry it to another apartment after having been removed, instead of putting it on the ivory points warm, and allowing it to dry quickly. Packing it in dangerous materials for the sake of cheapness, the propagator either wanting to avoid correspondence with the consumer, or else, ashamed of his goods, fails to put his label on. The druggist and physician looking for goods that cost less than ten cents a vaccination, sacrificing the lives of their patrons by buying dangerous vaccine, or that which is not vaccine at all, because it is sold to them at cut prices. The druggist may keep a good article too long; it can always be exchanged for fresh without extra cost—this would be simple carelessness on the part of the dealer; the physician's retaining the goods in a vest pocket, or hot office; neglect of cleanliness in operating, want of knowledge of a proper method, and an over-anxious desire to protect the arm.

When is the Physician Safe?—How shall the physician know when he is safe, and how shall he obtain the best results? First, by keeping in touch with the best propagators. Ascertain for a certainty that they have the proper kind of establishments and exercise the proper care. Let the physician buy from a druggist upon whom he can depend, being certain that he is not getting cut rate goods; be sure that the goods bear the label and full address of the propagator, that he may be able to correspond with the producer, should he have any difficulty, either from failure or excessive action. Let him await for results of bovine virus from five to eight days, and to look with suspicion upon anything that acts on the second, third or fourth day. In this way he can avoid many of the dangers, and protect his patient, as well as help overcome the fraudulent practices of those who care not for the health of their fellow beings.

How to Remedy by Inspection.—It has been suggested that the government assume control. To assume the role of propagator, would, in this country, be a greater failure than it is to-day in those countries that have tried it. We are exporting vaccine to-day because it is pronounced superior to theirs, and I was informed this summer at Chicago by their own people that the government virus was not generally used by the intelligent classes. State propagation is not practicable for the one reason, if no other,

that there is not sufficient demand to enable the preparator to keep up a continuous preparation, or carry sufficient stock to be able to meet the demand when it arises. I would suggest a National Board of Health, composed of one member from each State Board, they to appoint inspectors from their number whose duty it would be to thoroughly inspect every vaccine establishment of the country, and allow none to be sold without a registry number, guaranteeing to the druggist, physician and layman that the article he buys, uses, or has used upon him or his children has received the sanction of the proper authorities. Then, and not until then, can compulsory vaccination be justly enforced.

THE ALCHEMIST.

Sic transit gloria mundi! So passes the glory of the world with alchemy, the once glorified science of the world's shrewdest thinkers and investigators, and now, the ridicule of the common herd! Were our forefathers really so ignorant that they could not detect the fallacies into which alchemy betrayed them? No, they were by no means ignorant; they were simply biased by erroneous conceptions; and can we really be certain that we are no longer subject to the same sources of error? As long as we believe in miracles, we shall look for miracles, wear galvanic chains, diet ourselves on Revalenta Arabica, seek the fourth dimension in spiritualism, and look to miraculous sources for the healing of our bodily infirmities.

Aristotle was a great scholar and a deep thinker, but there was a great deal that he did not know. According to his view, all matter could be classified as dry or moist, hot or cold; air was moist and hot, fire dry and hot. On such views, it was easy to rear the inference that the properties of substance might be so modified that, subject to another set of conditions, it might be changed into an entirely new body. Aristotle taught, especially, that a mixture is such a union of two or more substances as involves neither the loss of one nor the other, nor results in both remaining unchanged, but rather in the formation of a third substance with properties opposite to those which produced it. The noble metals, he argued, were obtained by separation from substances which afforded no direct evidence of their presence; might not, then, ignoble matter generally, be made to yield the precious metals? Geber, the Arabian, dissolved gold with aqua regia. Might not, then, he who could dissolve gold, also make gold? The art of making gold appeared, theoretically, so possible of achievement, that one cannot wonder that attempts were made to realize it practically. Geber's theory was that all metals were compounds of quicksilver and sulphur, differing from each other only in consequence of the varying proportions of the two substances, and of the conditions of their intermixture. He did not, however, mean common sulphur, but a basic substance which he regarded as the principle of combustion.

The magic medium supposed to possess the power of converting ignoble metals into gold was called the "Philosopher's Stone," "the red lion," "the great elixir," "magisterium," or "the red tincture;" the medium for the preparation of silver was called "the white lion," "the little magisterium," or "the white tincture."

The experiments of the alchemists resulted in the discovery of some valuable medicinal remedies, and the alchemists at once rose to the idea of an elixir of life which should cure every disease, and admit of prolonging life indefinitely. This belief was entertained by Albertus Magnus, Roger Bacon, Arnold von Villanova, and others renowned for their learning; and their scholars disseminated the teaching throughout the world. The men who were supposed to have discovered the "Philosopher's Stone" were styled "adepts."

But faith in the "Philosopher's Stone" would hardly have made so many proselytes, if the alchemists had not produced chemical preparations which, in themselves, excited wonder. Dioscorides, in the first century A. D., was familiar with the processes of sublimation. Gynesios, Bishop of Ptolemy, described the process of distillation in the fifth century; cupellation had been described by Pliny, Strabo and Dioscorides; Geber was familiar with metallic arsenic, which, on account of its combustibility, he termed the "father of sulphur." It was he who first introduced the wet method into chemistry. By means of nitric acid, he was able to effect decompositions and combinations of which the ancients had not the faintest idea. The director of the great hospital at Bagdad, Mahommed Al Rasl (died 732 A. D.), by means of his medical writings, introduced the use of many chemical preparations to the medical profession. Paracelsus, renowned for his marvelous cures, placed great faith in specific secret remedies (*Specifica Arcana*) suitable for all diseases. Paracelsus is not, however, to be ranked with the pure alchemists, for he taught that the true end of scientific research is not to produce gold but to prepare remedial agents.

The sixteenth century produced a rift between the alchemists and the chemists. A. Libavius (1556) published a valuable text-book on chemistry (still under the style "Alchemy"); and while one set of the alchemists continued to deceive themselves and princes with the delusion of gold-making, another set devoted itself to practical, useful investigation. In the sixteenth and seventeenth centuries, nearly all the principal rulers of Europe were bitten by the alchemist's mania, and a great deal of spurious gold coin—presumably an amalgam of copper—was put into circulation. One of the best results from this line of research must be credited to Böttcher of Dresden, who, though he failed to produce gold, discovered kaolin (porcelain clay) and thus laid the foundation of the still-celebrated Dresden ware.

But, while chemistry made rapid progress, alchemy was slow to die. As late as the opening years of the nineteenth century, Körtum, the author of the "Jobslad," founded, in Berlin, a society of alchemists whose proceedings were published in the *Deutsche Reichsanzeiger*.

The true art of making gold by chemical agency remained undiscovered until 1840, when Liebig published his work on "Organic Chemistry in Its Application to Agriculture," in which, and in his later work, "The Principles of Agriculture" (1855), he taught the art of maintaining the fertility of the soil by restoring to it the substances removed by the crops.—*Der Stein der Weisen*, Vienna, Literary Digest.

EXAMINATION QUESTIONS.

This Department is for the publication of questions and answers from our readers, the subject being to place before them questions for self-examination and to indicate the directions in which study can be profitably carried on.

We solicit questions to which replies are desired, particularly questions suggested by personal experience and study.

Correct Answers to the questions in each series will be published in a subsequent issue of the paper, as announced, together with the names of all persons sending us correct replies.

Write the Number of the series at the top of your reply and write on one side of sheet only.

Address—EDITOR PHARMACEUTICAL ERA, Box 583, Detroit, Mich.

SERIES NO. 1.

Correct answers to these questions, together with the names of all persons answering correctly eight or more of them, will be published in our April 1st issue.

Replies should reach us not later than March 15th, 1894.

1. Give meaning of the term evaporate, and state the difference between evaporation and distillation.
2. What is the difference between a sediment and a precipitate.
3. Give the official fluid or liquid measures, their abbreviations, and their equivalents in minims. (By "officinal" is understood U. S. P.)
4. What is the official thermometer? Why is mercury especially adapted for use in thermometers? Convert—10° R. into degrees temperature official standard.
5. Write a prescription for a four-ounce emulsion containing 25 per cent of castor oil. Give all the ingredients to make an agreeable and homogeneous mixture, with directions for compounding.
6. What significance is attached to the terminations *ate* and *ite* in the nomenclature of salts?
7. Define fermentation. What is a ferment? Give examples (pharmacopoeial) of the products of fermentation.
8. How would you distinguish between morphine and quinine? Between corrosive sublimate and calomel?
9. Two ounces of distilled water at 15° C. will dissolve how many grains of each of the following? Potassium chlorate? Boric acid? Epsom salt?
10. State the difference between annual, biennial and perennial plants, and give an example of each.

SERIES NO. 2.

Correct answers to these questions, together with the names of all persons answering correctly eight or more of them, will be published in our April 1st issue.

Replies should reach us not later than April 1st, 1894.

1. In the nomenclature of the Pharmacopoeia how are the titles of substances expressed?
2. What is effervescence? Deliquescent? Name two pharmacopoeial salts which effloresce. Two which are deliquescent.
3. Outline the official process for making syrup of wild cherry. Why is this process used? Upon what constituent does the virtue of this preparation depend? Why is glycerine used in the preparation?
4. Give the official title and the common and maximum doses of Kermes mineral, mercuric chloride, African pepper, tincture of opium, tincture of digitalis, tincture cantharides. Which are toxic, and what are the antidotes?
5. Belladonna. Give the botanical

name. Common name. Country indigenous to. What part is used? When should it be collected? What is the active principle? What is the dose of the powdered leaves? Of the principal alkaloid? Name antidote for belladonna poisoning. Name the official preparations of belladonna.

6. What do you understand by a poison? An antidote? A dose?

7. Write correctly in Latin, without abbreviation, and state the quantities of each ingredient, a formula to make one pint of an elixir, of which each fluid dram is to contain 1 grain of quinine, 1.00 grain strychnine, and 2 grains phosphate of iron.

8. Write an equation showing the reaction which occurs in the preparation of syrup iodide of iron by the official process. Spirit Mindererus. Hydrated Alumina.

9. What is the difference between a hydrocarbon and a carbohydrate? Give an example of each.

10. What is an essential oil? Name several official ones, and state their properties and dose. How would you detect the addition of alcohol to an essential oil?

PHARMACY.

DIALYZED IRON is incompatible with Fowler's Solution, the dense precipitate formed being ferric hydrate.

STRONTIUM BROMIDE INCOMPATIBLE WITH SODIUM BICARBONATE.—On mixing these salts effervescence occurs and a white precipitate is thrown down which consists of strontium carbonate.

QUININE AND ASAPROL are incompatible. If a solution of the former be dropped into a solution of the latter a resinous body separates and adheres to the sides of the tube. If the order of addition be reversed a white precipitate appears which becomes pasty and changes in color to gray.

LANOLIN REACTION.—If 2 grams calcium hydrate and 10 centigrams of lanolin are melted together, avoiding carbonization, cooled, treated with 5 cubic centimeters of distilled water, shaken with 5 cubic centimeters chloroform, on pouring the chloroformic layer upon an equal volume of concentrated sulphuric acid there will appear at the line of separation the deep red color characteristic of cholesterol. This upon the authority of Hilger. (W. Dr.)

COCAINE, BORAX AND GLYCERINE.—Borax produces a precipitate in aqueous solutions of cocaine, which disappears upon the addition of glycerine. Upon heating the mixture it becomes turbid near the surface, the turbidity extending gradually downward, but upon cooling it disappears. It is proposed by a contributor to Rep. de Pharm. to utilize this reaction as a test for the presence of cocaine, and he claims it to be capable of recognizing 1 part cocaine in 1,000 parts solution.

TURKISH HONEY, according to an analysis appearing in Chem. Zeit. under the authority of Dr. A. Fajans, has the composition, water, 7.97 per cent; invert sugar, 56.78 per cent; cane sugar, 31.02 per cent, ash, 0.31 per cent; residue insoluble in alcohol, 0.32 per cent. The chief estimate of the value of honey is afforded by the invert sugar, and only honey whose rotatory power in 20 per cent aqueous solution is more than 1.5 per cent, is

adulterated. Farther, if the sugar, after intervention with sulphuric acid rotates to the right, it is adulterated.

GURJUN BALSAM IN COPAIBA may be detected by mixing 1 gram of pure concentrated sulphuric acid with 25 grams of acetic ether and to 1 or 2 cubic centimeters of this solution add 2 to 4 drops of the copaiba balsam. There should appear no red or violet coloration if the sample be pure. Or thoroughly shake 1 volume of the copaiba with 3 or 4 volumes of water, filter through a wetted filter and add an equal volume of hydrochloric acid (specific gravity 1.12) when no pink color should appear within a quarter of an hour.

MICROCHEMICAL DETECTION OF SULPHUR may be effected, says Emich (Zeitschr. An. Chem., W. Dr.), by the following method, which will detect as little as 0.0000002 gram of combined sulphur. The substance to be tested is placed on a slide, and on it is dropped one drop of a 5 to 25 per cent solution of calcium chloride. Then the slide is inverted and exposed to bromine vapor for from three to five or more minutes. If the substance contains sulphur, crystals of calcium sulphate may now be recognized under the microscope. The test is particularly recommended for inorganic compounds and also the sulphocyanides.

PILL COATING.—The method described by a contributor to a Canadian contemporary directs to moisten the pills with a mixture of one part glycerine and two parts alcohol, then roll them in a powder composed of four parts saccharine, two parts tragacanth and one part potato starch. Remove the excess of powder by a sieve and repeat the operation. To have the pills white, moisten them with a mixture of one part glycerine and two parts ether and coat with a powder of equal parts of talc and calcium carbonate. For cacao coating, use two parts cacao, two parts saccharine and one part tragacanth.

SODIUM PHOSPHATE AND ALKALOIDS.—M. Christiaens has noticed the incompatibility between these substances and a series of tests have shown that the precipitate occurring in mixtures containing them is the alkaloid. He frankly admits that he has been in the habit of filtering such solutions before sending them out, but now he seems to have experienced a change of heart, and in L'Union Pharma. states that the phosphate of soda should be exactly neutralized with phosphoric acid, when this precipitation will not be induced. He makes the broad statement that all salts of alkaline reaction will precipitate alkaloids from their combinations.

GLYCERINE SUPPOSITORIES.—R. J. Lindberg told the members of the North Dakota Pharmaceutical Association at its last meeting how to make glycerine suppositories of very elegant appearance. Ten parts of stearic acid are dissolved in 180 parts of glycerine heated to just the proper temperature and to the solution is then added 5 parts of carbonate of soda, and after the mass becomes perfectly transparent it is poured into suitable molds. If upon cooling the suppositories are opaque too little carbonate of soda has been used and a little more should be added. Too high a degree of heat should be avoided. Various medicinal substances can be incorporated as desired.

LIQUID AIR.—The intensely interesting and valuable experiments and results described by Prof. James Dewar in recent lectures at the Royal Institution are attracting very much notice. In accounts of this last lecture given by our English contemporaries we are told that liquid air is continually boiling and passing away into gaseous air at a temperature of 190 below zero Centigrade, equal to about 350° of frost on the Fahrenheit scale, but the air can be kept in its liquid state for from thirty to forty hours if the proper precautions are taken. Even alcohol, the most unfreezable of liquids, yields to the intense cold of liquid oxygen. Some alcohol poured on the surface became converted into a little block of ice, which, for the time being, lost its power to burn. When taken out it gradually melted into a kind of treacly mass and finally resumed its liquid form.

SYRUP OF IPECAAC AND OPIUM.—This preparation, sometimes called Syrup of Dover's Powder, is a popular one and many formulas have been suggested. H. L. Grimes reports to Merck's Market Report that, while considering the N. F. formula the best yet published, he believes the following, which he has evolved, gives a superior preparation:

Fluid extract ipeac.....	30 c. c.
Deodorized tincture of opium	335 c. c.
Glycerine	35 c. c.
Syrup (special) enough to make	3,785 c. c.

Each fluid dram of this syrup represents 5 grains of Dover's Powder, or 1/2 grain each of opium and ipeac. The special syrup directed is prepared by dissolving with the aid of gentle heat 3,175 kilos of sugar in 1420 c. c. of water and straining through muslin when thoroughly cool. Ten per cent of glycerine can be added if thought advisable.

DETECTION OF COTTON SEED OIL AS AN ADULTERANT.—Cotton seed oil is largely used as an adulterant of other oils, particularly of olive and lard oils, and a test mainly relied on for its detection has been Bechi's, which depends upon the darkening of silver nitrate in contact with the oil. Of late there have been produced and now appear in commerce grades of cotton seed oil which do not afford this reaction, and Gantner (Chem. News) offers a method for detecting this quality of cotton seed oil in admixture. One cubic centimeter of the melted oil (which must be perfectly clear) is placed in a test glass and is then dissolved in 10 cubic centimeters of petroleum ether, a drop of concentrated sulphuric acid allowed to fall into the solution, and the whole immediately thoroughly shaken. The color changes are very pronounced and of characteristic variation in various fats. Pure lard develops a pale straw to a faint reddish-yellow, the solution remains at first clear but by degrees separates heavy drops of a strong reddish-yellow color, while the supernatant liquid remains slightly yellowish and in most cases clear. Cotton seed oil, however, gives at once a deep brown or black and the color is not discharged on standing. Mixtures of lard and cotton seed oil vary in color in proportion to the amount of the latter present, but the dark color is sufficiently pronounced even with but 1 per cent of adulterant. Olive oil gives results similar to lard.

FORMULARY AND QUESTION BOX.

The object of this department is to furnish our subscribers with reliable and tried formulas and to discuss questions relating to practical pharmacy, prescription work, dispensing difficulties, etc.

Requests for information are not acknowledged by mail and **ASSOCIATES' CONTRIBUTIONS RECEIVE NO ATTENTION.** To insure answer in the next number, queries should be in our hands *ten days* prior to the date of issue.

5954. Books on Grasses, Fungi and Insects.

A correspondent kindly sends in the following information supplemental to that in our last issue: For grasses, sedges and liverworts a complete analytical scheme may be found, illustrated with twenty-five copper-plates, in Gray's Manual of Botany, published by the American Book Co., 1890. For the morphology of these, and the (old) orders of algae, lichens and fungi consult Lennis, Part II., Botany, 1884. This work is well illustrated and the information there given is in great detail worked up to date by Dr. Frank. The work, however, appears only in German. There seems to be no scientific work in English devoted to the analysis of all of the larger fungi (mushrooms). The Agricultural Department in Washington published two monographs on twelve edible and twelve poisonous common mushrooms, which may be had for the asking. The only work which treats of this class of botany completely is in French: "Champignons," by G. Siccard, and published by Delegrave, Paris.

As to books on insects; the only scientific scheme for analysis is one on the Lepidoptera, subdivision Rhopalocera (Day butterflies), by Prof. Sam. H. Scudder. A very fair survey of the whole field may be gleaned from W. B. Carpenter's Zoology, Vol. II., and Kingsley's Natural History, Insects.

Additional information upon the subject of mosses may be found in Lesqueux and James' "Mosses of North America," and upon the subject of grasses in Beal's "Grasses of North America for Farmers and Students." The author of the last named book is the well-known professor of botany in the Michigan Agricultural College at Lansing.

5960. Indelible Ink.

(F. W. M.) See reply to query No. 5917 in the February 1st issue of the Era.

5961. Essence of Peppin.

(M. J. G.) See Era of September 15, 1892, page 173, and December 15, 1892, page 362.

5962. Baking Powder.

(J. G. J.) See formulas in the last issue of the Era, page 144. Also October 15, 1893, Era, page 350, and November 1st, page 494.

5963. Elixir of Opium.

(M. J. G.) The proprietary preparation you name is said to be identical in every particular to the deodorized tincture of opium of the pharmacopoeia.

5964. Dermatol.

(D. W.) We expect to publish in an early issue a complete exposition of the law governing the subject of patents and trademarks as applied to medicinal substances.

5965. To Preserve Bicycle Tires.

(E. S. E.) There are no specific directions to this end so far as we are aware. No preparation can be applied to the rubber tire which will in any way preserve it. About the only suggestions that can be made are to remove the weight of the machine from the tire either by suspending it, or by inverting it so that the weight may rest upon the handles and saddle. The same care necessary to the preservation of ordinary rubber goods would hold in the case of rubber tires. Avoid extremes in temperature and use no oil, varnish or other dressing to preserve the rubber. No special care other than as suggested would seem necessary.

5966. Edelweiss Perfume.

(W. R.) The following is taken from Lete's Manufacture of Perfumery:

Extract jasmin	250 drams.
Extract tuberose	250 drams.
Extract orange	125 drams.
Extract heliotrope	125 drams.
Extract yachinthe	125 drams.
Oil bergamot	10 drams.
Oil basil	5 drams.
Tincture musk	5 drams.
Tincture ambergris	5 drams.
Tincture oil bitter almonds	2½ drams.
Tincture angelica	25 drams.
Tincture vitivert	25 drams.

The extracts noted in this formula are the odors extracted from French flower pomades.

5967. Cherry Phosphate.

(H. B.) Try the following:
Pure cherry syrup..... 4 pints.
Pure raspberry syrup..... 4 pints.
Acid solution phosphate. 8 fl. ounces.
Wild Cherry Phosphate:
Pure wild cherry syrup..... 6 pints.
Pure grape syrup..... 1 pint.
Sherry wine

1 pint.
Acid solution phosphates. 8 fl. ounces.
Syrup of cherry may be made by mixing two pints black cherry juice with one gallon plain syrup.

Wild cherry syrup for the soda fountain may be made by the following formula:
Wild cherry bark (in coarse powder) 12 ounces.
Glycerine

4 fl. ounces.
Crushed sugar

3½ pounds.
Distilled water, a sufficient quantity.
Moisten the bark with 14 fluid ounces of water and allow it to stand in a warm place for 24 hours in a covered vessel, then pack it firmly in a percolator, and pour water upon it until 2 pints of the percolate is obtained. Dissolve the sugar in the liquid by agitation, without heat, add the glycerine and strain. The formula for acid solution of phosphates may be found elsewhere in this department.

5968. Prescription Query.

(W. H. B.) sends in the following prescription:

Solution ammonium acetate	2 fl. ounces.
Camphor water	1½ fl. drams.
Spirital nitrous ether.....	½ fl. ounce.
Tartar emetic	2½ grain.
Morphine acetate	½ grain.

Should the prescription when compounded make a colorless preparation? Does the order of mixing the ingredients make any difference in the color of the preparation? The prescription was compounded in several different ways and in each case the final result was the same, showing that the order of procedure had nothing

to do with the color of the preparation, which was invariably the same upon allowing the mixture to stand a short time. The color change observed is due to the decomposition of the spirit nitrous ether. There are several points to be taken into consideration in the discussion of the chemical changes likely to take place between the various ingredients. Thus, if the solution of acetate of ammonium be acid it will be incompatible with the spirit of nitrous ether and the tartar emetic, and, upon the other hand, if it be alkaline it will be incompatible with the tartar emetic and the morphine acetate. Upon the whole, a number of changes are likely to take place, indeterminate in their character, but which eventually end in the decomposition of the spirit of nitrous ether, which accounts for the color change observed.

5969. Chicle Chewing Gum.

(C. F. B.) The processes used by different manufacturers in preparing chicle for use in the manufacture of chewing gum are nearly identical and differ only in detail. When the chicle is received at the factory it is broken into small pieces and the foreign material with which it is contaminated, such as sticks, stones and dirt, is carefully removed. After these have been eliminated the broken pieces of chicle are placed in large iron retorts and melted together with sugar. Each retort contains a churning arrangement which thoroughly mixes the melting sugar and chicle. After this process the flavor is given by adding oils such as peppermint, wintergreen, etc. While the gum is still warm it is taken to the kneading rooms, where it is thoroughly worked and kneaded until it looks like gingerbread ready for the oven. Fine sugar is added from time to time to prevent "sticking" in the kneading process. When sufficiently kneaded, the pieces of gum are rolled through steam rollers into sheets of the exact thickness required. These sheets are then placed under a marker, which indents and lines out the "sticks" of a desired size. They are then dried, separated, wrapped and packed ready for the market. A formula for the preparation of a chicle gum was given in the April 15th Era, 1893, page 350. Whether it will be available to you in the present instance can only be proven by trial.

The Era expects to present in its next issue an article upon this subject from a practical standpoint and it will contain other information you desire.

5970. Filtering a Decoction.

(Subscriber) sends in a prescription for a decoction to be made from some eleven different coarsely cut barks, leaves and roots. He says he has experienced considerable difficulty in percolating and filtering the decoction after boiling. A decoction as a rule is not intended to be either percolated or filtered, but strained. If strained while hot, it deposits a portion of insoluble matter on cooling, which may or may not contain active ingredients; but it is generally advisable to retain the precipitate and diffuse it through the liquid, stirring or shaking it up before taking each dose. Of course, if you do not want to retain the precipitated insoluble matter you can strain the decoction while hot, allow the liquid to stand until the precipitate settles and then carefully decant or draw off the clear portion. Such a procedure does not seem advisable in the present instance, however.

5971. Peptonized Foods.

(C. H. C.) Peptonoids, or rather peptones, are formed by the action of pepsin or pepsin and pancreatin on albuminous foods or substances. They are, in fact, partially digested foods fitted for assimilation. Upon this line manufacturers have introduced preparations containing peptonoids to aid deficient peptic digestion. Albuminous foods or substances may also be digested by means of some one of the various vegetable ferments, such as papayotin, etc.

(1.) According to Wood, a peptonized beef may be prepared by simmering $\frac{1}{2}$ pound of minced beef for two hours in 1 pint of water containing 20 grains of bicarbonate of sodium, allowing to cool to about 100° F., digesting at this temperature with a tablespoonful of pancreatic extract for 3 hours, decanting and momentarily boiling.

(2.) Another preparation may be made by chopping lean beef very fine and macerating it for about 6 hours in a solution of pepsin with water and hydrochloric acid at a temperature of about 100° F. In this way the beef is mostly dissolved, the mixture is strained, and the solution may be combined with various medicines, as may be required. Sometimes an excess of pepsin and pancreatin are added, and the solution thus prepared is added to wines, elixirs, and emulsions.

5972. Face Powders.

(J. D. H. C.) Various substances are made use of in the manufacture of toilet powders to give them an oily feel. The product known in commerce as "Blanc fard" or "Blanc francais" is obtained by mixing 100 parts moist powdered talc with 12 parts of spermaceti, previously rubbed to a moist powder with some alcohol, and dried at a moderate heat. Then, too, powdered stearite or soapstone may be used as the basis of a powder possessing this property. Here is a formula from the Era Formulary which may be of service to you:

Pistachio meal (in finest powder and deprived of the oil)	10 pounds.
Talcum	10 pounds.
Oil lavender	$\frac{3}{4}$ ounce.
Oil rose	$\frac{1}{2}$ ounce.
Oil cinnamon	$\frac{7}{8}$ grains.

Hager gives the following:

Powdered starch	20 grams.
Powdered talc	10 grams.
Ultramarine	0.15 grams.
Oil rose	1 drop.
Oil neroli	1 drop.
Tincture musk	1 drop.

Tint as desired.

A few experiments along the line of these suggestions will, we think, enable you to produce a satisfactory article. In the March 1st, 1892, Era were published a large number of formulas for face powders from which you may also get some valuable suggestions.

5973. Washing Fluid.

(J. W. & Co.) A great many formulas for preparations of this nature have been published from time to time in the Era. In addition to the two below, see Era of July 15, 1892, page 61, and Era for April 15, 1892. In the issue last named will be found a variety of formulas for washing and cleaning operations.

Soap	2 ounces.
Boiling soft water	1 gallon.
Stronger ammonia	$\frac{1}{4}$ ounces.

For a cheap washing fluid and one easily made, this is one of the best.

(2.)

Dissolve 2 pounds of soap in five gallons of water as hot as the hand can bear it; then add three large size tablespoonfuls of liquid ammonia and one spoonful of best oil of turpentine. These fluids are incorporated rapidly by means of beating them together with a small birch broom. The linen is then soaked in this liquid for three hours, care being taken to cover the washing tub with a closely fitting wooden cover. By this means the linen is thoroughly cleaned, saving much time, rubbing and fuel.

5974. Vesicant Collodion.

(D. J. H.) Try the following process taken from the British Pharmacopoeia: Cantharides in powder... 5 ounces. Acetic ether, a sufficiency.

Mix the cantharides with 3 fluid ounces of acetic ether; pack in a percolator, and at the expiration of twenty-four hours pour acetic ether over the contents of the percolator, and allow the solution to pass slowly through until 20 fluid ounces are obtained. To this liquid in a stoppered bottle, add 1 ounce of pyroxylin and shake them together until the latter is dissolved.

Here is another from the Era Formulary:

Cantharidin	1 part.
Castor oil	40 parts.
Acetone	40 parts.
Collodion	900 parts.

Rub up the cantharidin in the oil, heating carefully to hasten solution. Let cool, add the acetone, and finally incorporate the collodion. If desired the preparation may be colored by the addition of 10 parts tincture of hemp. The acetone is used on account of its superior solvent action upon the cantharidin. According to Dieterich it is the best solvent for cantharidin, one part of the latter at 15° C. requiring 35 parts of acetone, 65 parts of chloroform and 550 parts of ether to effect solution.

5975. Terpin Hydrate.

(S. S. L.) This is one of the preparations recently made official by the United States Pharmacopoeia and there described as colorless, lustrous, rhombic prisms, nearly odorless, and having a slightly aromatic and somewhat bitter taste, soluble in 250 parts of cold (15° C.) or 32 parts of boiling water, in 10 parts of cold or 2 parts of boiling alcohol; also soluble in about 100 parts of ether, 300 parts of chloroform, 1 part of boiling glacial acetic acid, and to some extent in carbon disulphide, benzene and turpentine. Terpin hydrate is sometimes called "Turpentine camphor" and is usually prepared by the interaction of a mixture of rectified oil of turpentine 4 parts, alcohol 3 parts, and nitric acid 1 part. The mixture is allowed to stand in shallow porcelain dishes during some days, when a crystalline body separates, which is collected, drained, pressed between bibulous paper and crystallized in the cold from 95 per cent alcohol made alkaline with a little potash and soda. At a temperature of 116° to 117° C. it melts, with the loss of water, and at the temperature of boiling water, sublimates in fine needles. A list of tests of identity and purity is given in the Pharmacopoeia. Terpin hydrate is sometimes deposited from oil of turpentine when the latter contains water.

As to its medicinal application, it has antiseptic and expectorant properties and has been employed to some considerable extent in subacute and chronic bronchitis and whooping cough. It has also been recommended as a diuretic in chronic inflammation of the kidneys. The dose as an expectorant is stated at from 2 to 3 grains. As a diuretic in chronic nephritis, it may be given in from 5 to 6 grains, and in whooping cough from 20 to 40 grains. It is best administered in tablets or in alcoholic and syrupy mixtures.

5976. Kola-Coca Syrup for the Soda Fountain.

(Subscriber.) Under the title "Kola-Coca Syrup" Dubelle gives the following:

Plain syrup	7 pints.
Kola wine	$\frac{1}{2}$ pint.
Coca wine	$\frac{1}{2}$ pint.

The same authority gives this for "Kola-Coca Malt Phosphate":

Extract of malt	2 pounds.
Kola wine syrup	3 pints.
Coca wine syrup	1 pint.
Cinchona wine syrup	1 pint.
Pure orange wine	1 pint.
Spirit of rose	$\frac{1}{4}$ fl. ounce.
Acid solution of phosphates	8 fl. ounces.

The kola wine syrup is made by adding 2 pints of kola wine to 3 pints of simple syrup. The coca wine syrup by adding 2 pints of coca wine to 3 pints of simple syrup.

The acid solution of phosphates may be prepared from this formula:

Potassium phosphate ..	80 grains.
Magnesium phosphate..	160 grains.
Sodium phosphate	80 grains.
Calcium phosphate	240 grains.
Ortho-phosphoric acid...	8 fl. ounces.
Water enough to make...	8 pints.

5977. Egg Shampoo.

(W. E. C.) The following are taken from the Era Formulary:

(1.) Ammonia water	3 fl. drams.
Cologne water	3 fl. drams.
Alcohol	5 fl. ounces.
Water	5 fl. ounces.

Whites of eggs, as many as desired.

The whites of eggs (about 2) are thoroughly beaten up previous to being mixed with the water and water of ammonia; the remaining ingredients are added in their order and the whole stirred briskly.

(2.) New England rum	15 ounces.
Bay rum	10 ounces.
Glycerine	1 ounce.
Borax	2 ounces.
Whites of egg	2

Difficulty may be experienced in dissolving 2 ounces of borax in the alcoholic liquids; it is recommended to incorporate the borax in fine powder with glycerine, and to add the bay rum and New England rum gradually and with constant stirring to the mixture. The white of egg is well beaten and added to the solution of borax, and the whole stirred thoroughly until an even mixture results.

(3.) Yolk of one egg.

Rose water	1 pint.
Eau de cologne	1 fl. ounce.
Transparent soap	1 dram.
Rectified spirit	$2\frac{1}{2}$ ounces.
Carbonate of potassium..	1 dram.

Dissolve the carbonate of potassium in half the rose water over a water bath, then mix the other half, and slowly rub down with the yolk of egg. Lastly add the spirit and eau de cologne.

(4.) Shampoo Cream.—Soap (fine, white, in shreds), $\frac{1}{2}$ ounce; rose water, 1 fluid ounce; solution of ammonia, 1 fluid ounce, alcohol or bay rum, $\frac{1}{2}$ fluid ounce; rain water, 8 fluid ounces. Dissolve the soap in the rain water by heat, and when nearly cold add the ammonia, rose water and alcohol, stirring constantly.

5978. Deodorizing Alcohol Without Distillation.

(M. J. B.) No process will deodorize alcohol so satisfactorily as distilling it with potassium permanganate or some similar oxidizing agent. However, here are two processes for the purification of alcohol which may answer your purpose:

(1.) Alcohol 1 gallon.
Unslaked lime 4 drams.
Powdered alum 2 drams.
Sweet spirits of nitre 1 dram.

First reduce the lime to a very fine powder, add to it the alum, mix the two powders well together, and pour them into the alcohol. Shake well, add the sweet spirits nitre, and shake again. After the mixture has been kept a week, with occasional agitation, filter it through animal charcoal, when a pure, deodorized spirit will be the result.

(2.) Cover 10 pounds of animal charcoal with a few inches of water, add 1 $\frac{1}{2}$ ounces of concentrated sulphuric acid, agitate the mixture thoroughly, and let it stand over night. Draw off the water the next day, and wash the mixture with fresh water until the latter has no longer an acid taste and does not redden litmus paper. The drained off charcoal is then placed upon the perforated bottom of the filtering apparatus, covered with a layer of flxivated straw $\frac{3}{4}$ to 1 inch thick. Upon this is placed another perforated bottom, and upon this a mixture of 1 pound of magnesite, 20 pounds of wood charcoal and 5 $\frac{1}{2}$ pounds of pyrolusite. This is also covered with a layer of flxivated straw and a finely perforated plate upon which comes a thick layer of river sand previously washed and dried. The liquor to be purified is then compounded with $\frac{3}{4}$ ounce of spirit of ammonia to every 20 gallons. The liquor is allowed to remain quietly for a few days and is then gradually passed into the filter, where it remains for 3 days, when the purified liquor is drawn off and the filter may be replenished.

5979. Preservation of Oil of Lemon.

(M. J. B.) There have been numerous processes suggested for this purpose, but none of them are of value unless used in connection with the proper storage of the oil and its careful protection from light and air. Oil of lemon, like many other volatile oils, absorbs oxygen from the air with avidity and combines with it. In the oxidation process the thinny fluid oils become perceptibly more thickly fluid, the final product being a resinous body. To prevent evaporation, as well as the effects of light and air, the oil should be preserved in not too large bottles kept as full as possible, and closed with a good cork, over which may be tied a piece of bladder. The bottles should be stored in a cool place. The preservation of the oil may be assisted in several ways, one of the best, and perhaps the least objectionable, being the addition of from 0.5 to 1 per cent of anhydrous alcohol. Sodium bisulphite, in the proportion of 50 grains to 1 pound of the oil, has also been recommended for the purpose.

Früh recommends the following method:

To every pound of oil one ounce of alcohol is to be added, and well mixed, then one ounce of water is added, which withdraws the alcohol from the oil and collects at the bottom as diluted alcohol, separating a resinous film. It should be allowed to remain until the oil is used. It is said oil of orange may be treated in the same manner with excellent results.

To restore old and resinified oil Curieux recommends a strong solution of borax, which is mixed with animal charcoal, and then agitated with the oil. For large quantities the simplest process is, perhaps, redistillation with water, and sometimes with a little alkali. Another process consists in mixing the oil with a solution of permanganate of potassium in the proportion of 1 ounce of the salt to 8 ounces of water; this quantity is sufficient for 4 pounds of the oil. The mixed oil and the solution are agitated together for some time, when the oil is decanted, mixed with fresh water, and warmed gently until it floats on the surface.

5980. Lacquer Polish.

(J. G. J.) Just what you mean by "lacquer polish" is rather indefinite. Lacquers are used upon polished metals and wood to impart a lustrous appearance. Here are several formulas:

Lacquer for Brass:

Turmeric 1 ounce.
Annatto $\frac{1}{4}$ ounce.
Spanish saffron $\frac{1}{4}$ ounce.
Shellac 3 ounces.
Alcohol 16 ounces.

Digest the first three ingredients with the alcohol for 24 hours, then dissolve the shellac in the liquid.

Gold Lacquer:

Ground turmeric 1 pound.
Gamboge 1 $\frac{1}{2}$ ounces.
Gum sandarac 3 $\frac{1}{2}$ ounces.
Shellac, powdered $\frac{1}{2}$ pound.
Alcohol 2 gallons.
Turpentine varnish 1 pint.

Digest for a week, frequently shaking the mixture; then decant and filter.

To Lacquer Flowers:

Pulverize 40 parts of sandarac, 15 parts of mastic and 2 parts of camphor, and put the powder into a long-necked flask; then pour 1,000 parts of rectified spirit over it, and place the flask in a moderately warm place, shaking it at first frequently, and then allowing it to stand quietly so that the fluid may settle. Flowers, plants and herbs may be coated with this lacquer. It is also adapted for coating maps, cards, copper prints and pictures.

Black Lacquer for Leather:

Dissolve—
Best shellac 40 grams.
Sandarac 10 grams.
Mastic 5 grams.

In $\frac{1}{2}$ litre methylated spirit, and add 20 to 30 grams pure Venetian turpentine. The solution is colored a deep black by adding nigrosin.

5981. Liquid Shoe Polish.

(C. J. C.) Three distinct formulas may be found on page 14 of the January 1st issue. Some one of the following, however, may prove more satisfactory for your purposes:

(1.) Alcohol 1 gallon.
White turpentine 1 $\frac{1}{2}$ gallons.
Venice turpentine 4 ounces.
Shellac 4 pounds.
Sweet oil 4 ounces.
Lampblack 2 ounces.

(2.) Ivory black 4 ounces.
Lined oil 4 $\frac{1}{2}$ ounces.
Treacle 4 ounces.
Coppers 4 $\frac{1}{2}$ drams.
Vitriol 4 $\frac{1}{2}$ drams.
Vinegar, quantity sufficient.

(3.) Yellow soap $\frac{1}{2}$ ounce.
Yellow wax 4 $\frac{1}{2}$ ounces.
Boiling water 10 ounces.
Turpentine 10 ounces.

Melt the wax in the turpentine, dissolve the soap in the water, mix in a hot mortar and stir until cold. By adding 1 ounce of extract of logwood brown dissolved in water a good polish for brown leather boots results.

(4.) Lampblack $\frac{3}{4}$ ounce.

Indigo, in fine powder 1 dram.

Rub together in a mortar with sufficient muciilage (made by dissolving 4 ounces of gum arabic in $\frac{1}{4}$ pint of strong vinegar) to form a thin paste; add very gradually of sweet oil 1 ounce; triturate very thoroughly until intimately mixed, when the remainder of the muciilage is added; then further add of treacle $\frac{1}{2}$ ounces; and afterwards, successively of strong vinegar 2 ounces, alcohol 1 ounce. Bottle for use.

(5.) Mix the whites of two eggs with $\frac{1}{2}$ ounce of alcohol, 2 large lumps of sugar (crushed), and sufficient finely powdered ivory black to give the required color and thickness, avoiding excess. The last named preparation is commonly laid on with a sponge or soft brush, and when almost dry or hard may have its polish heightened with a brush or soft rubber, after which it is left for a few hours to harden.

5982. Floor Polish.

(O. P. S.) The following are several formulas from the Era Formulary:

(1.) Stearin 1,000 parts.
Yellow wax 250 parts.
Potash 600 parts.
Hard soap 100 parts.
Water and coloring matter to suit.
(2.) White wax 750 parts.
Bleached shellac 750 parts.
Bright resin 60 parts.
Oil of turpentine 1,000 parts.
Alcohol 4,000 parts.

Melt the wax, shellac and resin together, remove from the fire and add, while still hot, the turpentine, and stir well. Warm the alcohol to a point nearly that of the solution and add, with rapid and thorough stirring.

(3.) Cut 1 pound of best beeswax into small pieces, dissolve thoroughly in 3 pints of turpentine, stirring occasionally if necessary. The mixture should be only a trifle thicker than the turpentine alone. Apply it with a rag to the surface of the floor, which should be smooth and perfectly clean; this is the difficult part of the work, for the right amount to be applied is learned only by experience, less being required for hard, coarse-grained wood than for soft and open-grained. Experiment on a square foot or so at first. Put on what you think is enough, and leave it for 24 hours, or longer if necessary. When thoroughly dry, rub it with a hard brush until it shines. If it polishes well, repeat the process over the entire floor; but if not, remove the wax with fine sandpaper and try again, using more or less than before until the desired result is secured. If the mixture is slow in drying, add a little Japan dryer in the proportion of about 1 part of the dryer to 6 of turpentine.

(4.) Boil 20 parts of litharge in 100 parts of linseed oil for an hour, then add 75 parts of best yellow wax melted and 7 parts of tallow, and 90 parts molasses. Heat to 230 degrees F. until the water is evaporated, and then add 50 parts lamp-black, 140 parts turpentine, 17 parts alcohol, 2½ parts shellac, 1 part aniline.

5983. Syrup Hypophosphites.

(D. J. H.) Here are several formulas taken from a many sources, said to make similar preparations to the one you name:

(1.) Strychnine 1 grain.
Quinine 40 grains.
Magnesium hypophosphite..... 40 grains.
Hypophosphorous acid.. 110 grains.
Dissolve in 1 ounce distilled water and filter.

Sodium hypophosphite... 160 grains.
Calcium hypophosphite... 160 grains.
Solution hypophosphite of iron..... 3 ounces.

Dissolve and filter, mix the two filtrates, add 4 ounces glycerine and sufficient syrup to bring the whole up to 1 pint.

(2.) Glucose..... 1 pound.
Simple syrup..... 1 pint.
Hypophosphite of calcium..... 138 grains.
Hypophosphite of potassium..... 48 grains.
Sulphate of iron..... 48 grains.
Sulphate of manganese... 32 grains.
Sulphate of quinine..... 14 grains.
Sulphate of strychnine... 2 grains.
Water, q. s..... 2 pints.

Dissolve the calcium hypophosphite and potassium hypophosphite in 2 fluid ounces of the water. Add to 1 ounce of the water 3 fluid drams of syrup and dissolve in the mixture, by aid of heat, the remainder of the salts. Mix the solutions and set by for a few hours, covered, until the deposit of calcium sulphate subsides. Filter into a bottle containing the remainder of the syrup; wash the residue with 1 ounce of boiling water; mix filtrates and washings with the syrup. Dissolve the glucose in the mixture and add enough water to make the preparation measure 2 pints.

(3.) Hypophosphite of calcium..... 740 grains.
Hypophosphite of sodium..... 256 grains.
Hypophosphite of potassium..... 192 grains.

Hypophosphite of manganese..... 192 grains.
Sulphate of iron (crystals)..... 370 grains.
Strychnine 4 grains.
Sulphate of quinine... 123 grains.
Sugar 24 troy ounces.
Orange flower water... 1 fl. ounce.
Diluted sulphuric acid,
Diluted hypophosphorous acid,
Water of ammonia,
Distilled water.

Of each, sufficient quantity.

Dissolve 228 grains of hypophosphite of calcium in 4 fluid ounces of distilled water; mix and filter. Dissolve the remainder of hypophosphite calcium with the other hypophosphites in 4 fluid ounces hot water, using about 1 to 2 fluid drams diluted hypophosphorous acid to aid solution; mix the two solutions and set aside. Dissolve the strychnine in 2 drams water, by aid of a few drops of hypophos-

phorous acid, and again mix with the other solutions. Now dissolve the quinine sulphate in about 8 ounces water, using a little diluted sulphuric acid, precipitated with sufficient diluted ammonia (1 part ammonia to 6 of water) until the ammonia is in slight excess. Wash the precipitate and transfer to a mortar, rub to a paste, gradually add diluted hypophosphorous acid to perfect solution, and add to the other solution, making the whole measure about 16 fluid ounces. To this add the orange flower water and sugar and dissolve cold by shaking. Lastly, filter, add water to make the whole measure 32 fluid ounces. Each fluid dram contains hypophosphite of calcium, 2 grains; hypophosphite of sodium, 1 grain; hypophosphite of potassium, ¼ grain; hypophosphite of manganese, ¼ grain; hypophosphite of iron, ¼ grain; quinine, ½ grain; strychnine, 1-64 grain.

5984. Artificial Flavoring Extracts.

(H. Bros.) These are composed chiefly of compound ethers, which possess the odor and flavor of certain fruits. Here are formulas for the special flavors you desire:

Extract Pineapple—

(1.) Deodorized alcohol..... 500 parts.
Diluted alcohol..... 200 parts.
Pure pineapple juice..... 190 parts.
Pineapple ether..... 100 parts.
Tincture vanilla..... 10 parts.
Color with tincture curcuma.

(The pineapple ether in the above is thus made: Alcohol, 400 parts; concentrated essence of pineapple peel, 400 parts; butyric ether, 120 parts; sebacic ether, 40 parts; acetate of amyl, 10 parts; butyrate of amyl, 10 parts; acetic ether, 10 parts; extract of vanilla, 10 parts.)

(2.) Deodorized alcohol..... 60 fl. ounces.
Pure pineapple juice... 20 fl. ounces.
Butyrate of amyl..... 10 fl. ounces.
Butyric ether..... 5 fl. ounces.
Glycerine..... 3 fl. ounces.
Chloroform..... 1 fl. ounce.
Aldehyde..... 1 fl. ounce.

(3.) Butyric ether..... 1 fl. ounce.
Alcohol 1 pint.
Turmeric, enough to color.

Extract Raspberry—

(1.) Deodorized alcohol..... 500 parts.
Diluted alcohol..... 200 parts.
Pure raspberry juice..... 170 parts.
Raspberry ether..... 100 parts.
Tincture of orris..... 20 parts.
Triple extract of rose.... 10 parts.
Color with tincture of alkanet.

(Raspberry ether is made of alcohol, 400; concentrated essence of raspberry, 400; tincture of orris, 80; acetate of amyl, 75; chloroform, 15; triple extract of rose, 10; oenanthic ether, 10; acetic ether, 10.)

(2.) Butyric ether..... 60 drops.
Acetic ether..... 40 drops.
Spirit nitrous ether..... 10 drops.
Glycerin..... 10 drops.
Alcohol..... 2½ fl. ounces.
Alkanet, q. s. to color.

A simpler and perhaps better way of preparing this is by adding to a strong tincture of orris root a small proportion of acetic ether.

Extract of Strawberry—

(1.) Deodorized alcohol..... 500 parts.
Diluted alcohol..... 200 parts.
Pure strawberry juice... 140 parts.
Strawberry ether..... 100 parts.
Pineapple ether..... 45 parts.
Tincture of orris..... 10 parts.
Tincture of vanilla..... 5 parts.

Color with tincture of alkanet and saffron.

(Strawberry ether: Raspberry ether, 840; pineapple ether, 150; tincture of orris, 5; extract of vanilla, 5.)

(2.) Butyric ether..... 50 drops.
Acetic ether..... 50 drops.
Spirit nitrous ether..... 20 drops.
Glycerin..... 20 drops.
Alcohol..... 2½ fl. ounces.
Alkanet, enough to color.

Another limitation may be made by adding to a weak solution of butyric ether in alcohol a very small proportion of oil of cloves.

5985. Gelatine Pill Coating.

(G. A.) Several formulas have been published for a gelatine solution for this purpose. Hager's formula for extemporaneous coating consists of 2 parts of white gelatin and 5 parts of distilled water, melted with the aid of a water bath. When material for gelatin coating is to be kept on hand, 10 parts of white gelatin, 25 parts of distilled water, and 6 parts of 90 per cent alcohol are used, and after mixture by means of a water bath, allowed to cool, when it forms a jelly. As much as may be needed of this mixture can afterwards be melted with a water bath. To use either of these solutions, the pills are one by one stuck upon a pointed wire, and are dipped into the solution with care not to immerse the wire; the wire with the pill is to be twirled about for a few moments, and then stuck upright into a pin-cushion, vessel of sand or a piece of bread. When all the pills are coated they may be removed from the wires.

Another and more expeditious way is to put about 20 drops of the warm gelatin into a warm porcelain capsule, then add 60 pills, shake them about until they are all moistened, and then distribute them about on waxed paper as quickly as possible and allow them to dry for a couple of hours. The aid of an assistant in distributing them is desirable in order that it may be done quickly.

Dr. Symes' formula for gelatin coating consists of French sheet gelatin, 4 parts; water, 16 parts; glycerin, 1 part. Melt with the aid of heat. A board is required into which pills have been pressed so that the points project some distance, and it saves time to have another board with depressions corresponding to the pins, in which the pills to be punctured can be held. The points of the pins, having been greased, are made to puncture the pills, and then, any scum on the coating solution having been removed, the pills are dipped and then rotated to insure an even coating until the coating has set.

Dimock advises 6 drams of Cox's gelatin and 1 dram of granulated gum arabic to be dissolved in 14 drams of No. 8 acetic acid with the aid of a water bath; add 1 ounce of spirit of nitrous ether and 5 minims of oil of gaultheria, and mix. Make the pill mass a little softer than usual; use as little powder as possible in rolling, and when the pipe is nearly long enough for cutting, lay in front of it a thread long enough to reach over the sides of the pill machine, or cut a slit along the pipe and lay the thread in this. Roll to full length and cut the pills, which can then be kept strung on the thread like beads. Holding each end of the thread, shake off any adhering powder, and then dip the pills into the coat-

ing solution; twirl the thread so as to throw off any excess of solution, and hang the pills up to dry by pinning the ends of the thread to opposite sides of a box. When the coating is dry the thread can be cut close. Some practice is needed to insure good and speedy results by this method.

The Chemist and Druggist gives the following variation of this method: Into the end of a bottle cork stick a dozen needles so that the points will diverge and stick a pill onto each point. A mixture for coating is to be made of 4 ounces of French gelatin, 1 ounce of gum acacia, 2 drams of boric acid, and 40 ounces of water. Macerate the gelatin and the acacia in the water for 12 hours. Dissolve with the aid of a water bath, add the boric acid, and strain through muslin. A sufficient quantity of this stock mixture having been melted, the corkful of pills is to be dipped, withdrawn and held for a moment to allow excess of coating to form drops. These may be removed by allowing each one to touch the surface of the liquid, after which the cork should be twirled for a few moments and then set aside to allow the coating to harden.

Patch says that the following is found by him to be most generally suitable: Best French, gold-labeled gelatin, 2½ ounces avoirdupois; distilled water, 7 fluid ounces. Macerate until gelatin softens, dissolve by water bath, add powdered boric acid, 2 drams, then slowly add mucilage of acacia, 2 fluid ounces, and strain. He also makes the following practical comments:

"Much of the success of the process depends upon having the solution of proper density; the thinner it is the better, providing it gives a firm and complete coating when dry. The warmer the solution the more rapid will be the drying; but judgment must be used in regulating the temperature in each case, for if too warm it may soften and destroy the form of the pill, or in cooling the gelatin may contract and split or crack. Pills consisting largely of aloes, gum, resins or solid extracts should be made very hard and dipped into a thin, comparatively cool solution. If dipped in too warm a solution the pills will soften, and when the gelatin contracts it will cause the softened mass to protrude from the needle hole.

"Pills containing carbonate of ammonium, citrate of iron and other scaled salts, valerianates, acetates, alkaline iodides, etc., should be dipped in a cool solution. Glycerin should be avoided as an excipient owing to its tendency to soften the coating. Glucose forms a good general excipient for pills to be gelatin-coated, and may be used alone with quinine or with a little powdered extract of licorice for dark pills. A mixture which thickens by keeping should have a little distilled water added from time to time. A pad saturated with petrolatum should be provided into which the needles may be thrust to grease them before they are inserted into the pills. The needles should be thrust only so far into the pills as to hold them securely, and the pills should be immersed into the coating mixture just far enough to cover them. Excess of coating mixture may be removed by touching the pills to the underheated surface of the cover of the container (or to the surface of the heated mixture)."

5086. Qualitative and Quantitative Tests for Glucose.

(O. P.) The ordinary methods of detection and estimation of glucose depend upon its reducing power. Fehling's solution, a formula for which may be found in the last edition of the Pharmacopœia, is in common use both as a qualitative and quantitative test for glucose. It is a solution of 34.61 grams of pure crystallized copper sulphate, 173 grams of litmelle salt, and 80 grams of sodium hydrate in a litre of distilled water. One cubic centimeter of this solution is exactly reduced and decolorized by 5 milligrams of glucose. For qualitative detection, various reagents may be used. Here are some of them:

1. Boettger's.—Heat the solution containing the glucose with a solution of sodium carbonate in presence of subnitrate or hydrated oxide of bismuth. Glucose reduces the bismuth salt to a gray or blackish bismuthous oxide.

2. Braun's.—A solution of glucose heated to 90° C. in presence of a little solution of soda, mixed with a solution of picric acid, boiling finally. Blood-red color.

3. Campan's.—Add a mixture of a concentrated solution of subacetate of lead with a dilute solution of acetate of copper. Yellow to orange precipitate.

4. Hager's.—To 30 grams red oxide of mercury and 30 grams of acetate of sodium add 25 grams of picric acid, 50 grams chloride of sodium and 400 grams of water; after solution dilute up to 1 litre. Add of this test solution an excess to the liquid to be tested. Separation of mercurous chloride.

5. Heinrich's.—Dissolve 18 grams of iodide of mercury and 25 grams iodide of potassium in water, add 10 grams potassa, and water up to 1 litre. When heated with glucose there is a reduction.

6. Loewenthal's.—Sixty parts of tartaric acid, 240 parts carbonate of sodium, 5 parts crystalline ferric chloride and 500 parts hot water. Gives a brown precipitate on boiling with glucose.

7. Moore's.—Turns brown on heating with 3 or 4 per cent of caustic potassa, and evolves an odor of caramel on boiling an acid in excess.

8. Mulder's.—Boll with a solution of indigo (sulphindgotate of potassium), adding gradually a solution of carbonate of sodium. The blue color is discharged (turns green and red).

9. Pellgott's.—Solubility of lime. Make two assays of the lime, one with the cold solution and the other with the boiled solution (boiling destroys glucose). The difference between the assays equals the glucose (quantitative).

10. Schmidt's.—Glucose gives a red color when boiled with an ammoniacal solution of acetate of lead.

For the determination of glucose alone, Fehling's solution affords the most accurate means. In the absence of any other optically active body, examination with the polariscope will also suffice. The determination of commercial glucose, which is likely to be a mixture of dextrose, maltose and dextrine, is a problem of considerable difficulty. Three methods have been proposed:

The first, by Allen, requires the determination of moisture and ash in the sample, which, subtracted from 100, leaves the total organic solids, 0. The apparent specific rotary power, S, and the cupric oxide reducing power (in terms

of dextrose reduction—100), K, are now determined. Then if M be the maltose, G the dextro-glucose, and D the dextrine, Allen determines the respective percentages by the use of the formulas

$$M = \left(\frac{S - 52.7K}{100} + 0.314 \right) G - K - .62M, \text{ and } D = 100 - (G + M).$$

The author states that the presence of gallisin or other unfermentable sugar may vitiate the values of K and S, as observed, and so make the results inaccurate.

The second method is that of Wiley, which is based upon the theory that boiling in an alkaline solution of mercuric cyanide will destroy the optical activity of maltose and dextrose, leaving that of dextrine unchanged. The cupric oxide reducing power of the sample is ascertained in the usual way by Fehling's solution. The specific rotatory power is determined by polarizing a 10 per cent solution (previously heated to boiling) in the ordinary manner. Ten cubic centimetres of this solution used for polarizing are then treated with an excess of an alkaline solution of mercuric cyanide, and the mixture boiled for 2 to 3 minutes. It is then cooled and slightly acidulated with hydrochloric acid, which destroys the reddish-brown color possessed by the alkaline liquid. The solution is then diluted to 50 cubic centimetres, and the rotation observed in a tube 4 decimetres in length. The angular rotation observed will be due simply to the dextrine, the percentage of which may then be calculated by the formula

$$\left(\text{Rotation} \times 1000 \times c.c. \text{ of solution polarized} \right) \div (R \times \text{length of tube in centimeters} \times \text{weight of sample taken}) = \text{percentage of dextrine.}$$

The percentages of dextrose and maltose may be deduced from the reducing power of the sample, or from the difference in specific rotatory power before (S) and after (s) the treatment with alkaline mercuric cyanide.

$$\text{Thus, } K = 1.00g + .62m, \quad S = .527g + 139.2m + 1.58d, \quad \text{whence } m = \frac{S - K - 52.7K}{1.0524}.$$

g can now be found from the first of the three equations, and then d in the second.

The third method of estimating the constituents in commercial glucose is due to C. Graham, and is probably more exact than either of those before mentioned. Dissolve five grammes of the sample in a small quantity of hot water and add the solution drop by drop to 1 litre of nearly absolute alcohol. Dextrine is precipitated, and on standing becomes attached to the sides of the beaker, while maltose, gallisin and dextrose are soluble in the large quantity of alcohol employed. If the solution be then decanted from the precipitate, the dextrine in the latter can be ascertained by drying and weighing, or by dissolving it in a definite quantity of water and observing the solution, density and rotation. The alcohol is distilled off from the solution of the sugars and the residual liquid divided into aliquot portions, in one of which the gallisin may be determined after fermentation with yeast, while the others are employed for the observation of the specific rotation and reducing power, which data give the means of calculating the proportions of maltose and dextrose in the sample.



RALPH L. COBB.

LESTER A. COBB.

SAMUEL M. STRONG.

EDWIN L. STRONG.

SAMUEL E. STRONG.

STRONG, COBB & CO., CLEVELAND, OHIO.

NEWS COMMENT.

A first-class new drug store will be opened by Chas. L. Kellogg, in Oconoco woc, Wis., about February 15.

The first bill passed by the Iowa legislature was one exempting registered pharmacists from jury duties.

J. J. Shuster, druggist of Loveland, O., has been visited by fire, his stock being damaged to the extent of \$1,000.

Ever risked everlasting torment for just one mean little apple, because Satan told her it was good for the complexion.

Arthur Lyman has been admitted to membership in the firm of Lyman Sons & Co., wholesale druggists of Montreal.

Druggist Goldwater, of Mt. Vernon, N. Y., puts up prescriptions free for poor people who bring orders from the relief association.

This is the way to start a patent medicine business. A new corporation in Portland, Me., has been capitalized with \$1,000,000 stock, of which \$125 is paid in.

A corporation lately come into existence is the Minnesota Drug and Chemical Co. of St. Paul. The capital stock is placed at \$50,000, with a debt limit of \$10,000.

The Burrough Bros. Manufacturing Co. has been incorporated in Baltimore, Md., with a capital stock of \$100,000. The company will manufacture chemical and pharmaceutical preparations.

Chas. J. Daubach, well known to Nebraska druggists, being the secretary of the H. C. Clarke Drug Co. of Lincoln, fell from a street car a few days ago and dislocated his shoulder, fracturing the bone.

The suit brought by a Mrs. Wright against druggist E. Soper, of St. Joseph, Mo., charging him with a mistake in selling her a poisonous drug instead of dandelion, is still dragging its weary length along, with the end not yet in sight.

The druggists of Amsterdam, N. Y., are engaged in discussing cut rate prices in patent medicines. They have also decided that they will meet the cut rate prices and now lively competition in the drug trade is looked for.

The H. G. Hotchkiss International Prize Medal Essential Oil Co. has been incorporated at Lyons, N. Y., and will engage in the distillation and refining of peppermint oil. Lyons is situated in Wayne county, one of the largest peppermint producing districts in the country.

Druggist H. S. Moore, Schenectady, N. Y., sends us a 50-page illustrated pamphlet descriptive of that city, its business men and industrial importance. The distribution of this publication by Mr. Moore is but one of the many wideawake ideas he has for pushing his business.

Druggist J. M. Johnson, of Hudson, N. Y., is likewise postmaster in that town. Early this month burglars visited his place of business and broke into the safe, securing some \$3,600 in valuables, \$200 of which was in cash. Mr. Johnson says if sand and money will catch the thieves they will be caught.

Burglars entered the drug store of E. Belleene at Stockholm, Wis., last month, but were frightened away by a couple of young men who were sleeping in the store. A little revolver practice on both sides, one of the burglars slightly wounded, but all escaped.

Munyon's Homeopathic Home Remedy Co. received an order on the 2d inst. from the Smith, Kline & French Co. for \$1,000. This is the largest order ever placed by any wholesale drug house for goods of this description.

Webber's Pharmacy is the new sign over the door of the Schenectady drug store recently owned by George Gertzen, deceased. The new proprietor is a graduate of the Albany college and for a number of years was employed by Geo. E. Duryce. A new Low Art Tile fountain is an attraction of the store.

A druggist of Oskaloosa, Kas., convinced of the error of his ways, through attending a Methodist revival, has abandoned the sale of all liquors, but being of a thrifty turn of mind, he shipped back a lot of beer he had ordered before his conversion rather than pour it into the street as do some real reckless, extravagant fanatics.

W. H. Scheffelin & Co. are claiming that the Phena Trocine Co. of Philadelphia are infringing upon their trademark and have notified them to discontinue or stand a suit. The Philadelphia firm state there is no ground for the complaint, and are prepared to contest any effort to stop their business.

Salt Lake City had a drug store fire a few days ago, the house of Layman & Co. being entirely consumed. The insurance companies sustaining losses investigated the circumstances of the fire, and advised recalling of all policies. A compromise settlement is likely to be offered by the companies, and if not accepted by the insured, a legal contest will ensue.

The courts of San Francisco, Cal., are called upon to decide the question of royalty on the I. X. L. Bitters and a formula for celery, beef and iron as a tonic. The plaintiff is the widow of the late Dr. Henley, who claims that she is entitled to a royalty on all business done in them. The Manufacturing Drug Co. claim that they own the formula themselves and that no royalty is due.

Druggist A. Nattans, in Washington, D. C., has paid \$400 assessed against him for selling liquor illegally. He had a certain Golden Fruit Tonic which was very popular with the rouders, but the judge did not believe the statement that it was a medicinal article pure and simple, for a bottle of the stuff bought proved to be nothing but whisky, though the bottle produced in court in the defense was entirely another thing. The manufacture of the article has ceased and the fine been paid.

About five years ago H. A. Kerste opened a drug store at Schenectady, N. Y., with a small stock of drugs and chemicals. He has been successful beyond all expectation and recently has erected a handsome three-story brick block which will be occupied February 15 by the owner. The stores are finished throughout in quartered oak, the lighting on all floors is by electricity, steam heat is employed and the various fixtures are of most approved modern pattern, material and finish. The soda fountain is from J. W. Tufts and the canopy top is furnished by the New York Store Fixture Co., who also supply the shelving. Whittall, Tatum & Co. are the makers of all the glassware employed and the show globes come from Porter Farley, of Rochester.

Alfred Gribner, a San Francisco druggist, has been arrested for personating a detective and obtaining money under false pretenses.

Low Art Tile Fountain have recently been sold to A. S. Letourneau, Fall River, Mass.; G. W. Oate, Fall River, Mass. Changes in fountains: E. A. Bowers, Malden, Mass.; D. Kimball & Co., Portsmouth, N. H.; S. J. Briggs & Co., Providence, R. I.; A. W. Fenner, Jr., Providence, R. I.; J. I. Street, Malden, Mass.; C. H. & H. A. Lawton, New Bedford, Mass.; J. F. Lang, Everett, Mass.; J. H. McCorrison, Campbell, Mass.; G. S. Russell, Easthampton, Mass.; P. F. Whalen, Webster, Mass.; P. V. Joyce, Ballardvale, Mass.; W. I. Jones, Framletown, N. H.

A. P. A. SPECIAL MEMBERSHIP COMMITTEE.

A new departure was inaugurated at the last meeting of the A. P. A. in Chicago when the president of that association was instructed to appoint a special membership committee consisting of one member from each state and territory, whose duty would be to solicit applications for membership from druggists in their respective sections of country. The committee will act under the direction of the chairman of the Council, J. M. Good, St. Louis, and the chairman of the committee on membership, Chas. Caspari, Jr., Baltimore. The committee is composed of the following gentlemen with Florida, South Carolina, Washington state and North Dakota yet to be heard from.

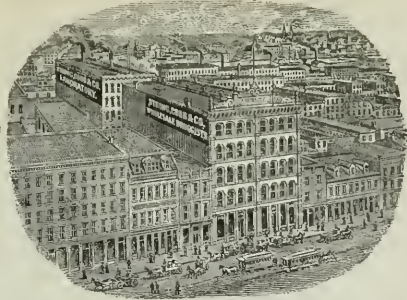
Alabama, Phillip C. Candida, Mobile; Arizona, Clemens L. Eachment, Phoenix; Arkansas, Wm. W. Kerr, Russellville; California, Wm. M. Searby, San Francisco; Colorado, Chas. S. Kline, Denver; Connecticut, Chas. A. Rapelye, Hartford; Delaware, John M. Harvey, Wilmington; District of Columbia, Samuel L. Hilton, Washington; Georgia, Henry R. Black, La Grange; Idaho, Albert O. Ingalls, Murray; Illinois, T. H. Patterson, Chicago; Indiana, Josiah K. Lilly, Indianapolis; Iowa, Mrs. Rosa Upon, Marshalltown; Kansas, Mrs. M. O. Miner, Hiawatha; Kentucky, Wiley Rogers, Louisville; Maine, Edward A. Hay, Portland; Louisiana, Alex. K. Finlay, New Orleans; Maryland, D. M. Culbreth, Baltimore; Massachusetts, W. L. Scoville, Boston; Michigan, Arthur S. Parker, Detroit; Minnesota, James C. Hening, Stillwater; Mississippi, John C. Means, Natchez; Missouri, H. M. Whelpley, St. Louis; Nebraska, James Reed, Nebraska City; Nevada, William A. Perkins, Virginia City; New Hampshire, Andrew P. Preston, Portsmouth; New Jersey, Wm. C. Alpers, Bayonne; New Mexico, James A. Kinneer, Deming; New York, Caswell A. Mayo, New York City; North Carolina, Henry H. Cheers, Plymouth; Ohio, Louis C. Hopp, Cleveland; Oregon, Geo. C. Blakely, The Dalles; Pennsylvania, Prof. Frank G. Ryan, Philadelphia; Rhode Island, Henry J. Alfreds, Providence; South Dakota, Irvin A. Keith, Lake Preston; Tennessee, James O. Burge, Nashville; Texas, L. Myers Conner, Dallas; Utah, Frank A. Druehl, Lake City; Vermont, Henry A. Chapin, Brattleboro; Virginia, Edmund R. Beckwith, Petersburg; West Virginia, Edwin L. Boggs, Charleston; Wisconsin, John A. Dadd, Milwaukee; Wyoming, Thos. G. Maghee, M. D., Rawlins; Quebec, Seraphin Lachance, Montreal; Nova Scotia, Francis C. Simson, Halifax; Ontario, John Lowden, Toronto.

STRONG, COBB & CO.

Cleveland, the Ohio metropolis, has long been the dominant factor of the Buckeye state in wholesale drugs and chemicals, paints, oils and varnishes. To attain to such a prestige comparatively but few years were required. Evolution was rapid, brains, vim and ambition being its underlying strata. When Cleveland's pioneer citizens made that memorable rush for commercial recognition, Samuel Merwin Strong was abreast of the avalanche. Mr. Strong was a country boy. Born at Amherst, in Lorain county, in 1832 his educational advantages were necessarily narrow. Yet, after graduating from the Berea schools he gained admission to Oberlin College, more through a liberal self-tutorage than Berea pedagogy. At the age of 18 he was apprenticed to an Elyria druggist, with whom he remained one year. With his first savings of \$100 and a great deal of ambition he drifted to Cleveland, in 1851, and entered the employ of J. D. Hayward, also a druggist—for pharmacy had become his fixed aim in life—but Mr. Hayward retiring in 1853, our subject transferred his activity to the wholesale and retail drug house of Gaylord & Co. In 1855 he engaged in the manufacture of what became a popular remedy, "Dr. Samuel Strong's True Fever Destroyer." Three years later he, in company with A. C. Armstrong, purchased the wholesale business of E. F. Punderson, or Henderson & Punderson, whose origin dates back to 1833. This firm remained in business for about fifteen years, when, in 1872, the present company was organized. Thus it will be seen that S. M. Strong's career, although marked by vicissitudes, or rather, interruptions, is a straight and gallant line to what he aimed at. Its progressive stages are so well defined as to afford a subject for pleasant contemplation and a deep sense of admiration and plaudit. In the history of Strong, Cobb & Co. the only setback was the fire in 1881, when about \$40,000 worth of damage was done. Yet this never for a day clogged the wheels of progress.

S. M. Strong has always remained at the head of the house, and he is looked up to as the father, the maker of it all. When the National Wholesale Druggists' Association was organized in 1876, S. M. Strong was chosen its treasurer. He is its treasurer to-day—another evidence of characteristic constancy, which is a glorious tribute to his integrity and fitness. While a model business man, Mr. Strong is also a leader in society. Though retiring and modest, he has had many public honors thrust upon him. Recently, as a director of the Chamber of Commerce, he again proved his high character as a citizen, and a lover and promoter of all things Clevelandish.

Of the other members of the firm of Strong, Cobb & Co., Lester A. Cobb was admitted to partnership in 1870. Born in Birmingham, O., in 1850, he received his education in Cleveland schools. When old enough to choose his own career he entered S. M. Strong's employ as a traveling salesman, continuing until he was promoted to the management of the sales department. Of late Mr. Cobb's attention is partly given to his father's estate, of which he is the executor. While seldom seen at the company's office, Mr. Cobb retains a live interest. His name is coupled with several large industrial home enterprises which arrest his immediate attention.



PREMISES OF STRONG, COBB & CO.

Ralph L. Cobb was, like his brother, born in Birmingham, O., but is six years his junior. After finishing his education in Cleveland he eventually adopted his brother's career. This was in 1875. True to the life plan of his superiors, he started from the bottom of the ladder. After several years of assiduous application he was placed at the head of the sundry department, which position he now nominally holds. He devoted his entire attention to the interests of the company. For eight years he was the treasurer of the Cleveland Pharmaceutical Association.

Edwin L. Strong, son of the senior member of the firm, came to this world in 1860. He was educated in Michigan University, and at the age of 18 was given employment in his father's business. Edwin was a bright and attentive boy, and soon developed the traits inherited from his brave elder. With the exception of a short interval, when he put his agricultural by-instincts to a practical test at cattle raising in New Mexico, all of his business life had been given to the furtherance of the company's interests at home and abroad. He fills the position of general manager, and is apparently the right man in the right place. At the last election of the C. P. A. officers he was chosen treasurer.

Samuel E. Strong, while not as yet admitted to a partnership, deserves due representation in this sketch. "Sam" the younger is what the old weatherbeaten Cuyahogans term a chip from the old block. Coincidentally it may be remarked that the ages of the Strong brothers are as far apart as those of the Cobbs—six years. Samuel was educated at Andover, Mass., and at the age of 20 espoused his brother's calling. After going through the several stages of what constitutes a drug man's training on the high standard set by his father, he was given the most important position within the company's gift, that of managing buyer, and this he fills with grace and alacrity in the traveling man's eye and with credit to himself and the company.

The accompanying illustration gives but an inadequate idea of the company's premises. In all 77,000 square feet are utilized by the business. The Superior street facade building, known as the Cobb & Bradley block, one of the finest on the street, is five stories high and extends to Long street. The basement is given to sponges and liquor. On the first or office floor are found the sample and sundries department; second floor, order department; third floor, corks and

glassware department; fourth floor, patent medicine department; fifth floor, light drugs department. The Long street building is connected by a tunnel and bridge, and is also five stories high. The basement is fitted up with all manner of modern grinding apparatus. On the first floor paints and varnishes are stored; the second floor is the packing and shipping department; the third, the laboratory; the fourth and fifth are stock rooms. Adjoining the building is the company's capacious warehouse.

Besides these departments the company carries a large and complete stock of cigars, which department is in charge of Perrin Sherley. The following gentlemen have charge of the other classified departments: Paints and brushes, J. E. Tyler; liquor, H. M. Dillhoefer; sundries, Ralph L. Cobb (nominal), Howard Brown (active); laboratory, O. B. Hannon. From 100 to 125 men are on the pay rolls, and the traveling men cover a wide space of territory. The memorable depression of 1893-94 did not impede the progress of and expansion of the business in any phase, materially speaking, no more than the war and the panicky times of '73 dwarfed its healthy evolution. This is in a measure due to the company's thrift, circumspect go-aheadativeness, experiments along modern lines and, last, but not least, to liberal resorts to printers' ink.

The Minnesota Drug & Chemical Co. is a newly incorporated concern at St. Paul with a capital stock of \$50,000.

The differences between the Milwaukee, Wis., retail druggists and the telephone company noted before in these columns, have been adjusted. It is said that forty-eight druggists in that city are using the automatic pay-every-time-you-talk telephone and are satisfied with it. These gentlemen seem to think it to their advantage to use this kind of a phone, hence it is not likely the druggists' association will take further action.

They make large morphine pills over in England's North American provinces, if we can believe recent newspaper statements. A policeman in Calgary, Manitoba, is said to have taken six pills of eight grains of morphine each and death resulted. The jury brought in a verdict in accordance with the facts and censured the druggist for selling morphine without sufficient directions and cautions. Eight-grain pills of morphine would be quite a curiosity in stores in the states.

NEW YORK.

New York, February 19.—Mr. George J. Seabury, of Seabury & Johnson, has sent his resignation from the National Wholesale Druggists' Association to the officers of that organization. This, it is believed, is the first resignation since the N. W. D. A. was organized at Indianapolis in 1877. Everybody in the trade wants to read Mr. Seabury's letter of resignation, and the president and secretary of the association are requested to make the letter public.

Brooklyn druggists and physicians are mad clem through over the actions of the N. Y. and N. J. Telephone Co. For some time past an attempt has been made by the company to force druggists to place pay telephones in their stores and thus become the servants of the company. If a druggist declined to allow his store to be used as a pay station his telephone was immediately ordered out. These high-handed proceedings have aroused the druggists and on Tuesday next a meeting will be held at Brooklyn College, 39 Clarkson avenue, to take action in the matter. The interest physicians have in the subject is best described by druggist Thomas J. France, of 616 Myrtle avenue, Brooklyn, who says in a card addressed to the medical profession:

"The manager, Mr. Sargent, declared to me on January 8 that physicians, although subscribers, had no right to use the telephone in my store, stating at the same time that they had the same right to pay for the use of the telephone as the public, as they were paid for their services. He forgets to explain that while the physician receive but one fee, the company charge for two. He seems also to forget or probably he does not know that the physicians and the druggists were the main support of the telephone company during the first three years of its existence. Now he proposes to take the company's old patrons, the druggists whose contracts have expired, by placing "pay stations" in their stores to draw from the pockets of the physicians and their customers for the benefit of the telephone company. Although I offered the company an increased rental, Mr. Sargent had the telephone removed from the store on January the 9th."

The Dehamme-Deletere Brush Co., of Murray street, report business as considerably better than they have found it for the past four or five months. "The reason for this," said a representative of the firm, "is that when the brush schedule in the pending tariff bill was last changed the duty was made 35 per cent instead of 25. We now pay 40. This 5 per cent difference makes a change in selling price of about 3 per cent, not sufficient to cause the trade to hold back orders."

H. B. Platt may be seen at the Fulton Club any day at noon, full of good humor and luncheon.

A sub-station of the postoffice has been established at Neergaard's pharmacy, Fifty-third street and Sixth avenue.

Druggist Allen, who used to be located at Seventeenth street and Second avenue, is to open a new store at Millbrook, N. Y.

Dr. Gill's drug store in Mt. Vernon was one of the sixty stores and houses in that city railed by burglars during the past four weeks.

John Caswell, of Caswell, Massey & Co., has been duck shooting at Barnegat Bay. As usual, he was quite successful. He returned to town in time for his daughter's marriage.

Among the druggists fined recently for violations of the pharmacy law were Fred J. Stock-William T. Cox, George

Hoskinson, John O'Conner and Fred Kleinschmidt.

Mr. B. M. Douglass, western representative of the firm of Hane & Co., has returned to Chicago by way of Canada, stopping at Montreal and Toronto. This week Mr. Douglass goes to California.

George T. and A. L. Cochran, formerly of No. 97 Pearl street, are going to open a drug store near Battery Park. They have been furnishing ships with medical supplies and will run their drug store in connection with that business.

Wm. P. Halsey, vice-president of the Tilden Co., in charge of their St. Louis house, has been east on a visit for the past three weeks. On his return to St. Louis he stopped over at Quebec to enjoy the pleasure of the ice carnival.

The statement in the January 15th Era that druggist Geo. B. Wray, of Yonkers, had purchased a new Tufts fountain needs correction. The apparatus was made by A. D. Puffer & Sons, of Boston, is "colonial" in effect and was made after special designs.

That historic old inn, the "Century," on William street, seems to be just as popular as ever with drug trade men. While there the other day I was told that one customer had patronized the place for nearly thirty years. The J. W. Johns people are frequently seen there.

Isaac O. Woodruff, the druggist at 88 Maiden Lane, claims that the suit now being pressed against him by Ithamar Howe for the alleged alienation of the affections of Howe's wife, is a blackmailing scheme. Mr. Woodruff is one of the oldest druggists in this city, having been in the business here since 1859.

"For this time of the year," said a gentleman in the wholesale trade, "business is better than we have any right to expect. The promise of continued good business given by a spurt in January was not only broken, but broken badly at the end of that month. Perhaps that is the reason why the present depression is so severely felt."

H. L. Ford, who for the past eight years has had charge of the business affairs of the New York and Chicago Chemical Co., has severed his connection with that company to devote his attention to private interests. Arthur S. Winslow, who has been connected with the company for nearly five years, has succeeded Mr. Ford as treasurer and general manager.

A popular and successful business man of Brooklyn was Charles R. Paddock, who died February 7 at his home, 287 Clermont avenue. He was for twenty years a druggist in the city of churches, had two stores and had filled the president's chair of the Kings County Pharmaceutical Society for two terms. His death will be a severe loss to the profession in Brooklyn.

John W. Cox, one of the proprietors and vice-president of the Antikamnia Co., of St. Louis, has been absent from this city for about two weeks. He attended the directors' meeting in St. Louis and reports business very good. It was noted that Mr. Cox's return and the French ball were coincident, so it is rumored that he hurried home in order to attend the function.

H. B. Mason, son of Secretary Mason, of Seabury & Johnson, who has been doing efficient city work for that firm, sails for Europe to-day to accept a position with a London house. His friends will probably not see him again for a couple

of years. He severed his connection with Seabury & Johnson on Friday, receiving the hearty well wishes of everybody in the firm's employ.

Another point of special interest to the retailer was brought out in conversation with a delegate to the Interstate League meeting. What does it cost a retailer to sell a dollar's worth of goods? Does it actually cost him, say thirty-three cents, for every dollar taken in? How many druggists know what it does cost them? And it's a very pretty sum that many up-town druggists are paying now or have recently paid for the fixtures in their stores.

Van Horn & Ellison, the druggists at the corner of Park avenue and Forty-first street, made the chemical tests for arsenic and antimony on the contents of eighty-four vials of drugs found in the possession of Dr. Meyer, the alleged poisoner brought here from Detroit. The firm put in a bill for \$1,680, which Dr. Charles Rice, chemist for the department of charities and corrections, reported as excessive. Van Horn & Ellison will have to sue the city for their money or else accept about one-half of the amount asked.

Several gentlemen in the drug business are actively interested in the welfare of Amalfian Encampment, No. 12, G. R. A., Knights of St. John and Malta. Among others are Messrs. Alonzo A. Dargan, city salesman for Tarrant & Co.; Charles Bruhl, suburban shipping clerk for Lehn & Fink; Arthur J. Green, city shipping clerk for the same firm, and T. B. Eren, the druggist at the corner of Seventh avenue and 135th street. The encampment gives an entertainment at Washington Hall, 2107 Seventh avenue, on Tuesday evening, February 20.

Howell & Sangston, agents for the Low Art Tile Co., at No. 31 Church street, report business as being very encouraging. They have just put in a handsome fountain at Neergaard's pharmacy, Fifty-third street and Sixth avenue. It is one of the five-foot fountains, with tile and mirror top. Another example of their work will be seen in Tomas's drug store, at Sixty-fifth street and Columbus avenue. Tomas's store is to be one of the finest above Twenty-third street. Russell & Lawrie's new drug store at Tarrytown and Brownell & Low's at Orange, N. J., have received their fountains from Howell & Sangston.

Among others who secured a taste of notoriety during the past week were Joseph Bernard, of the drug firm of Leo Bernard & Co., Richard Klock, a druggist, and Edward Roxbury, clerk in a Third avenue drug store. Bernard was examined in supplementary proceedings growing out of his wife's penchant for charging goods to him after he had ordered the stores not to fill orders on account. Klock was accused of theft. Roxbury was called upon to go to Bellevue hospital and see a woman who had attempted suicide because she loved him. She didn't die, so there was at least one drug clerk who was happy this week.

Messrs. Fraser and Peters, of the Fraser Tablet and Triturate Manufacturing Co., of 17-27 Vandewater street, entertained a number of their salesmen who were in town at a dinner served at the Arena, on Thirty-second street, a few nights ago. The affair was quite informal. Covers were laid for ten persons, and after dinner the salesmen gave some

interesting descriptions of their experiences on the road. They will all be out "on the road" again in a few days, but they won't forget that good time at "Muschenheim's." G. S. Stoddard, of the Fraser Co., says, and he knows, that business is first-class and still gaining. Collections are better than for two years past.

Miss Elizabeth H. Caswell, the only daughter of Mr. John R. Caswell, of the Fifth avenue firm of Caswell, Massey & Co., was married to Mr. Edward M. Riley, of the Ninth National Bank, last Tuesday night. The wedding took place at the home of the bride's parents, No. 1690 Broadway. The ushers were William M. Massey, T. A. H. Weinz, A. W. Coe and David Costello. At the reception which followed many guests wished the bride and bridesroom all happiness. Among those who presented congratulations were Mr. Samuel W. Fairchild, Mr. Benjamin T. Fairchild, Mr. and Mrs. George Massey, Mr. and Mrs. P. J. Willemann and Mr. and Mrs. J. G. Albro. Mr. and Mrs. Riley are now in the south.

There is so much written and said nowadays about polypharmacy that the following prescription, handed to a Harlem pharmacist for compounding, will prove interesting, probably, to many readers of the Era.

Infusum achillea millefolii, infusum salvia, 15.0; aqua 2 ounces; tinctura croci, 1 dram; tinctura sassafras, 1 dram; tinctura vanillae, 5.0; aqua cinnamonoli, 1-2 fl. ounce; tinctura aloes composita 3 drams, oleum juniperi 2.0; oleum chamomille, aeth. 2.50; tinctura asafetidae, 1 dram; tinctura valeriana, aeth. 15.0; tinctura amaræ, 10.0; tinctura rhei, 2 drams, tinctura strychnina, tinctura selsamii, 1 dram; oleum sabinae 2.0; syrupus hypophosphitum cum morrhuae 1-2 ounce; tinctura castoreum 15.0; celerina 1-2 ounce; tinctura belladonna 5.0; extract. canadensis, fl. extractum secale cornutum, of each, 15.0. M. ft. D. 20 drops four times a day after meals.

Men seldom speak well of their own business, it is said, yet it hardly seems right for a retail druggist to accuse his fellow-retailers of being the most narrow-minded men in the world. A Fifth avenue retailer told your correspondent the other day that he believed such to be the case. "Most druggists," he said, "never look around the corner." He meant by that that they were so absorbed in their routine of labor that they disregarded what goes on in their own line of business outside of their particular office. The same sentiment was voiced at the meeting of the Interstate Druggists' League on Tuesday. One of the hits of the day was made by a druggist from up the state who characterized many men in his business as being "able to look with both eyes into a jug." He thought the average retailer looks all the time in one direction. "A lecture more broadening is what we need," he said.

COLLEGE OF PHARMACY OF NEW YORK.

There is much of interest going on at the College of Pharmacy these days. In the first place there is the hottest kind of a time in the senior class over the class valedictorian matter. The seniors received a week or two ago not to have any valedictory delivered at the commencement exercises which are to take place on April 26. This most unusual resolve has split the class into two factions and caused no end of talk among the alumni. Those seniors who put through the resolution claim that valedictory ad-

resses are out of fashion and that this senior class should show itself up to the times by dropping the custom. It must be said, however, that the most progressive men in the class are in favor of keeping the time-honored custom. Commencement exercises are to be held either in Carnegie Music Hall or at the Metropolitan Opera House, the final selection not being made up to the time of this writing. Everything will go off in good shape, just as if there had been no rumors in the class. But it shows there must have been some excitement in the senior class when at one meeting 120 members were present to vote on the matter, and there have been two or three meetings a week held to discuss the subject. There will be a valedictory address made at the senior class dinner, which is to be held some time in the week previous to commencement. The seniors this year number 165, as against about 120 last year.

In spite of the genuine sorrow over the death of Dr. Oscar G. Harrison, there was considerable amusement at the meeting of the seniors when the delegation which was appointed to attend the funeral was called upon to make a report. There was no one who considered himself able to make an elaborate report on the matter, but finally Mr. Wurthmann self-sacrificingly threw himself into the breach. The gentleman had the best intentions in the world, but he was much embarrassed, and in referring to the deceased he said: "Our fellow-instructor," which, of course, caused a snicker. That rattled the speaker so much that he went all to pieces, and only managed to say the "funeral was v-v-very enjoyable." That ended his report. The class was too much overcome to listen any more. Mr. W. has since tried many times to explain what he meant to say, but nobody will listen to him.

Lectures to be held under the auspices of the alumni association are scheduled as follows: "Nervous Exhaustion," Dr. Cyrus Edison, president of the Sanitary Board of the City of New York, Wednesday evening, February 14, at 8 o'clock. "Observations of a Pharmacognosist in London," H. H. Rusby, M. D., Wednesday evening, March 14. "First Aids to the Injured," James K. Crook, M. D., Wednesday evening, April 11.

Volume 1, No. 1, of the Alumni Journal, published by the Alumni Association, is a very neat, well arranged publication. The editor was Dr. O. G. Harrison, Ph. G., and his death, close to the date of the publication of the first number, places Fred Hohenthal and Harry Heller in charge of all editorial matters. The associate editors are Charles Rice, Ph. D., Charles F. Chandler, Ph. D., M. D., L. L. D., etc., Arthur H. Elliott, Ph. D., F. C. S., Henry H. Rusby, M. D., and Virgil Coblenz, A. M., Ph. G., Ph. D.

There have usually been four sections in the senior class, but this year only two were made, as it was thought the new college would be ready by January 1. The new college was not ready for the reception of students and the result is a sore disappointment to the young men. In previous years there were thirty students in a section; now there are eighty. The boys complain of too much crowding.

Druggist Fawcett, of Cando, N. D., must pay a fine of \$200 and serve ninety days in jail for illegal liquor selling.

INTERSTATE LEAGUE MEETING.

Thirty-eight delegates to the special meeting of the Interstate Retail Druggists' League met in Ionic Hall, Terrace Garden, at 10 o'clock on the morning of February 6. They were there to "get together," and yet they arranged themselves in two long rows on opposite sides of the hall, and sat that way until the janitor, seeing how cheerless the scene appeared, brought in seats that could be snuggled up together. Then the gentlemen warmed up, talked to each other and went to work with a will. President Canning, of Boston, was in the chair and the winning smile of Secretary Frick, of Louisville, could be seen all day long over in the corner. The other gentlemen present were: Thomas F. Main, New York; M. N. Kline, Philadelphia; Alfred H. Mason, New York; Charles Elaeu, Rochester; O. C. Winneman, Thomas E. Davis, O. Diamond, Victor Kostka, Charles A. Osmun, M. F. Bender, Oscar Kars, Thomas W. Linton, Carl Schur, A. T. Tschepe, H. A. Salmon, C. E. Kepler, A. Amend, T. O. Morrison, William Schevelles, F. W. Koch, T. J. Barnaby and G. A. Symes, all of New York; W. C. Durkee, G. W. Cobb, G. W. Flynn and N. W. Stiles, of Boston; W. P. Draper, Springfield, Mass.; M. L. H. Leavitt, Massachusetts Pharmaceutical Association; F. M. Harris, Worcester, Mass.; G. W. Johns, Rochester, N. Y.; Thomas Layton, St. Louis; I. M. Smith and E. K. Gridley, Providence, R. I.; R. C. Werner and L. F. Stevens, Brooklyn, and H. J. Alfreds, president of the Rhode Island association.

President Canning's address was first in the order of business. It was as follows:

Gentlemen of the Interstate Retail Druggists' League, and Fellow Druggists:

The large number here assembled in response to the call for this meeting evidences an active interest in the cause for which we have come together. As you must have perceived, by perusal of the published announcement, the New York City branch is principally responsible for the convention being called at this particular time and place. I am sure you were only too glad to accede to this request, believing that the great metropolis is the pivotal point in this great awakening of the retail drug profession. The sense of its immense power, hitherto latent, in alleviating the many evils besetting the commercial or business side of our calling. Our experience in New England clearly demonstrates that we have comparatively smooth sailing, after having once organized a great city. After Boston came Providence, Worcester, Lowell, Springfield, with several organizations in New Hampshire. So too, my dear friends, in a larger way, with New York thoroughly organized as the natural commercial head, will the organization of the rest of this great country be made easy; it is a forcible argument in itself.

Again you will perceive, gentlemen, that the purpose for which this meeting is called is stated in general terms, so that we may be able to discuss and transact any business that may tend to "the advancement of the League and the cause for which we are assembled."

I would not advise at this time any tampering with the laws or plan of construction of the League, leaving such action to the future after both are more thoroughly tested. It is generally bad policy to "tinker a new kettle." Time enough for soldering when it proves leaky! The plan of the League is a good one, being national, state and local in its scope. To put into effect the plan of its construction is such that we can absolutely voice the sentiments of the whole country by its delegates in convention assembled. To put into effect our energies at present in the direction of perfecting our organization, so that the measures adopted here to-day may be the quicker carried into effect.

Since the League was started some

three years ago many local organizations have been formed which can be directly traced to its paternal influence. Many of these organizations have not yet joined the parent body, however, preferring to stand on their own feet. I would like to see such associations "find it had not been for the League you had never been born." However large the aggregate amount may be, the dividend to each is but a trifle per year. What an insignificant little sum in itself, compared to the immense returns that might result from such trifling investments. I would like to see if it is a "go," but chip in your dollar and your voice with it, and help to make it "a go!"

Just at present the League wants money. Experience has taught us that it is generally uphill work to get the druggists to locally to organize among themselves—petty jealousies seem to stand in the way (why they exist I do not know). The uptown druggist does not care to meet his downtown brother, or "the north side has always held itself aloof from the south side," etc., etc., that give you a headache. I would like to send two or three bright organizers to such communities, when, lo! the "uptown" and "north side" are sitting side by side the "downtown" and "south side." At the banquet board, just beginning to realize that the interest of one is the interest of all, and wondering why they did not come together long ago! Some of the delegates will, I can tell you, try their experiences of this nature.

Your secretary and treasurer, yes, and your president, ought to be salaried officers. In such a business organization as this, I think you should include the president for two reasons—first, because I have held the office long enough to know something about the time, labor, energy and neglect that persons in trusts required to conscientiously endeavor to fulfill the office, and second, because my term expires before the League will be rich enough to make such appropriation.

Until we are thoroughly organized we need the "dollar and a half" and can get no good use of it. After that time, however, the League machinery can run smoothly at a much smaller figure.

Is there a necessity for such an organization as this? I would like to compare the average pharmacy of the past with the average as you find it to-day, and then ask yourselves the question, is there any hope for that ideal pharmacy of the future which you read about? The laboratory was the rule in the apothecary store of the past; the dispensary the exception. He of the past was not simply a preparator (not compounding) in ready-made prescriptions of great manufacturing houses; his neighboring physicians were not supplied by a messenger who was calling houses with remedial agents in such convenient form that he can prescribe and dispense at the same time in his own office; the apothecary of the past was not the victim of pernicious legislation nor was he obliged to pay more than his just share of taxation; he of to-day has all these troubles piled against him, and even more, for I have not only said anything about the proprietary medicine question. Verily, gentlemen, unless we put our heads together, we can not acquire a telescope to find the business end of the drug store. With an organization such as the League contemplates many of our difficulties may be at least abridged if not entirely surmounted, and further "broads may be prevented."

Now, gentlemen, allow me to trespass upon your valuable time by expressing a few thoughts on the subject of patent medicine question, and how to regulate the sale of these goods. The patent medicine has peculiarly a growth of the latter half of the present century, and is eventually to be regulated, beyond question, by law. In the meantime no one is better adapted to act as distributor to the trusting consumer than the pharmacist, who can best discriminate as to those safe to sell, and those which never ought to "see the light of day." We will not now attempt to discuss the details of the businesslike competition in the sale of these articles, but will endeavor to supply the remedy.

A plan to regulate the sale of proprietary medicines to approach perfection must embrace the following elements:—First, must, to bring about the maximum amount of success, contain the minimum amount of dependence on "good faith" alone; it must be a sensible business

measure, appealing to the business interests of proprietor, jobber and retailer alike; it must bring about the "greatest good to the greatest number"; it must consider as little business as possible, to either of the quartette interests involved; last and most important, it must have the active co-operation of all concerned.

The following simple plan already adopted by the League at its last annual convention, and having the indorsement of every local organization thus far to which it is possible to get, will contain all the necessary ingredients. It differs from the compromise measure adopted at the recent meeting of the N. W. D. A. in coming to the fore in the Detroit plan. Therefore, if it meets with your approval, I would suggest that it be called the League plan. Here is the first recommendation in form: Resolved, That the Interstate Retail Druggists' League respectfully recommends,

That proprietors accept orders for full quantities, with rebate discount, only from regular jobbing druggists, recognized as such by the League, who shall faithfully observe the prices and conditions established by the manufacturers, said manufacturers or proprietors to sell in full quantities, and to employ no druggists as agents to entirely control the sale to retailers, at uniform prices, regardless of quantity.

That each manufacturer is hereby requested to adopt a system of marking, by which his goods may be traced.

Resolved, Second, that, in other respects than the foregoing, we recommend that the adoption of the details for carrying out this plan be the same as those adopted at the Detroit meeting of the N. W. D. A., emphasizing our interest in the special clauses in the form of letter from manufacturer to wholesale agents relating to recognized and voluntary cutters, and to "League or Association embracing 50 per cent, etc.," rigidly enforced.

It is thought that this plan is nearer perfection than any so far suggested, and even if after a trial it is found wanting, it will strengthen the League, being easy to carry out. The manufacturer would be enabled to greatly reduce his counting-room expenses, and I claim that it would sell more and more goods than at present on account of the additional will from the retailers. Less inducement to substitute, though I do not in this connection desire to cry down certain forms of so-called substitution.

Under this plan, the only party given any extra work to do is the jobber, but he will be glad to take all these retail cutters off his hands, and he will be for his best interests as a business man to help his customers in getting living and bill-paying prices. You will not wonder, therefore, that this is based upon organization of the retailers, thus a slippery jobber would think twice before daring to run such a gauntlet.

Now as to the retailers; there are two classes that now buy direct from the manufacturers; first, a very small class, able to do so for their own legitimate sales, and second, a larger class buying direct from the manufacturer to divide up with neighbors. In either class the incentive for going direct is the same, viz.: to make the profit on buying, close competition preventing one from doing so at the selling end. Both classes, if these buyers were to band to make a fair profit on selling rather than a meager one on buying. Supposing the cutter for a time succeeds in getting the goods under this plan, he no longer has a ten per cent advantage of you! Supposing after this plan is put into effect some manufacturer cannot resist the temptation to make a trade in hands, you stand the League platform! But I will not offer any more arguments in favor of this plan—I want to leave something for you to say in your own floor.

I have but two other recommendations to offer. One to this effect, viz.: "That the fees of local branches shall be due upon the League's account, and thereafter annually from that date." My reason for this is obvious; this is a business organization and we want all local organizations to come in and join upon forming. There is no rule laid down to be regarded in this question, though I believe that dues have been supposed to be payable at some fixed date. My idea is this—If dues are payable in January, for instance, we do not want a local organization formed in September hesitating to come in because the year begins in Janu-

ary. They may change their minds in three months. Let them come in immediately.

I respectfully ask you to appropriate a sufficient amount to cover the secretary's hotel and traveling bill attendant upon this meeting.

In closing, let me extend the privilege of the floor to all present, expressing the hope that any action we may take may be of the unanimous sense of the general meeting. In the event of a division, all questions will be decided by the votes of the representatives of local branches and the officers of the League, including the executive state officers.

I trust your deliberations at this meeting may be earnest, honest and productive of good results to you and your fellow pharmacists. At the same time let me express the hope that your discussions may be tempered with wisdom well tempered with fraternal good fellowship. After you have left here and gone to your homes, put your resolves into immediate effect.

Messrs. Kostka and Layton were appointed a committee to act upon the president's address and retired to consider their report. The president had referred, before beginning his address, to the small number of delegates present, saying that he did not feel discouraged, however, because these movements always seemed to be started by a few men. But even while delivering his address the number of delegates had increased perceptibly. Mr. Canning told the delegates that more representatives were needed from New York. He saw several representatives of jobbing houses present and welcomed them because, he said, "Their interests and ours are identical." So he called upon Thomas F. Main, chairman of the N. W. D. A. committee, to address the League. Mr. Main told the delegates that the N. W. D. A. had always done what it could to further the interests of the retailers. He expressed pleasure at being able to be present at the meeting and his willingness to assist the gentlemen in any way he could.

Mahlon N. Kline, also of the N. W. D. A. committee, followed Mr. Main. He praised Mr. Canning and his work, and said that the League was able to do great work in getting the retailers together. A large majority of the proprietors whose goods are sold under the rebate plan, he said, are willing to adopt the plan when assured of its practicability. "At the meeting of the N. W. D. A. at Detroit," said he, "there was a unanimity of sentiment that was very encouraging in favor of a simple, practical solution of this matter. The plan appeared to meet with approval and to my mind deserved it. But it is hanging in the air. As far as the retailers are concerned it will hang there until they pull it down. The plan as agreed upon does not appear to have met with such a reception on the part of the retailers as must come if it is to be made a success. There is a missing link in the chain and it must be supplied by this or some other organization before the plan can be made a success. I hope in spite of the discouraging numbers here to-day that the enthusiasm will spread, so that you will have in fact as well as in name an Interstate Druggists' Association."

N. W. Stiles, of Boston, said that the druggists of that city were endeavoring to work energetically. They had secured between 300 and 400 signatures to the Detroit plan, but were ready to push any plan that seemed the best.

President Canning remarked that the traveling men of the drug trade could do much good if their services could be secured.

cured, and in order to let the members of the League hear what one traveling man had to say he called upon Irving M. Smith, of Providence. Mr. Smith was the organizer of the Mortar and Pestle Club, to which belong most of the druggists in the little state. The value of organization and co-operation, the situation of the wholesale druggist prior to the rebate system and his position now, were the points dwelt on by Mr. Smith, who thought the present plan was entirely feasible. Providence cutters had told him that they would be glad if they were forced into such a plan. "The interests of the people are just as well satisfied if they pay full value for patent medicines," said Mr. Smith.

Just here G. W. Johns, of Rochester, arose and made a little address that was brim full of quaint sayings and horse sense. He'd come down to New York to see what the League was going to do, "and if it did what was right, well, then, the Monroe county association was going to come in." Ninety per cent of the Monroe county druggists were organized, they had little gatherings and good times. "The average druggist is a cold, unso-called chap," thought friend Johns, "and he ought to be ashamed of himself. All other professional men get together. Why don't the druggists? Get up and mingle with the world," was his advice.

That speech did a lot toward warming up the meeting.

W. F. Draper, of Springfield, said that the druggists in his city were going to stand on one platform, that of harmony. Goods that the masses of the people were using every day must sell at a low margin of profit. On such articles as are not in common demand a larger profit could rightly be obtained. He wanted to carry back home some strong helpful word from New York. In Springfield the organized druggists had held a conference with the proprietors of the leading department store and secured the promise that the store should be worked in unison with those of the druggists. Those proprietors would also probably agree to the whole price list. The worst cutter in town had thrown up the sponge when he felt sure he could not get goods at lower prices than other druggists. The retailers had told this cutter that no matter how low he sold his goods they would meet his prices. As he couldn't make anything by staying out he came into the fold, and is now chairman of the pricing committee of the Springfield association.

Thomas Layton, of St. Louis, told quite a different tale than Mr. Draper. "We used to have an organization of retailers," he said. "There are just three members left." Experience had shown that the local association alone was not sufficient to keep the cutter from doing a thriving business. "St. Louis retailers," said Mr. Layton, "have lost confidence in the proprietors as a class. Since March 6, 1893, it has been 'go as you please' in our city. I hope to go home with such word that our people will regain their confidence. We want to see that the proprietors are really interested in this Detroit plan."

F. M. Harris, of Worcester, told a story that was much like Mr. Draper's. Twenty years of cutting had been brought to a close by the organization of the local druggists. He thought the "League plan,"

as suggested by President Canning, was better than the Detroit plan.

By this time the delegates were hungry, so a recess of an hour was taken. After lunch Secretary Frick presented his report and the treasurer's statement was read by President Canning. The League had on hand \$222 30, and some more money was to be paid in that day by associations wishing to join.

W. C. Durkee reported for the committee on credentials. Including Messrs. Main and Kline, of the N. W. D. A., there were thirty-eight delegates present and six other gentlemen, representing associations which had not yet paid their fees, had come in since the session began.

The committee on the president's address reported that all the recommendations in the address should be adopted.

Considerable discussion followed, and Mr. Layton submitted a resolution adopted by the wholesale druggists of his city, which asked the Interstate League to adopt the Detroit plan. The resolution was signed by six St. Louis firms.

Mr. Tscheppe spoke of the organization of German druggists, some 130 in all, and how successful it had been. He was also impressed with the fact that in this city the conditions seems unfavorable to concerted action on the part of the druggists.

Then came a discussion in regard to the suggestions of the New York branch, which recommended legislative work. President Canning opposed the New York suggestions as detrimental to the best interests of the Interstate League and of such a character that the delegates could not well vote upon them without consulting their respective associations.

Mr. Main also opposed the views of the New York branch. Legislative interference of any kind in commercial matters was dangerous. He had learned that in his many years' experience as a member of the N. W. D. A. committee on legislation. Very impractical was the suggestion that a lobbyist should be employed. The lobbyist would make money year after year and insure his continued employment.

Mr. Mason, of Seabury & Johnson, called President Canning's attention to the fact that his suggestions altered the Detroit plan materially, changing "wholesale houses" to "wholesale druggists." Mr. Canning had proposed this change at Detroit and being unable to effect it had professed his satisfaction with the Detroit plan. The president answered: "I felt at that time that half a loaf is better than no bread, but now I find that the original Detroit plan does not give even half a loaf. I found that on further investigation." Mr. Canning thought if the League was strong enough it could get the whole loaf.

Mr. Kostka favored the New York resolutions, for though there might be weak points in them he was sure there were some strong ones too. Something more than the League platform alone was needed to arouse the New York state pharmacists.

The New York resolutions were tabled, and the report on the president's address was unanimously adopted. This report also added the president's name to the secretary's in regard to the refunding of expenses incurred in attending the special meeting. The meeting then adjourned. In the evening several of the out-of-town delegates were entertained by members of the New York branch.

BOSTON.

Boston, February 10.—There was a lively hearing at the State House the other day, with an immense attendance of druggists and prominent temperance workers from all over the state. It was all on account of the following order introduced in the house on January 15 by Representative Estabrook, of Newton.

"No license of the sixth class described in Section 10 of Chapter 100 of the Public Statutes shall hereafter be granted to any person who is not a registered pharmacist, actively engaged in business on his own account; nor to any such registered pharmacist unless he shall present a certificate from the State Board of Registration in Pharmacy stating that, in the judgment of said board, he is a proper person to be intrusted with such a license, and that the public good will be enhanced by the granting of said license."

The first speaker in favor of the order was ex-Senator Emerson, of Haverhill, a druggist of forty-four years' standing. He made a strong argument in favor of the passage of the bill. He said that the drug business has been steadily retrograding, and that the clerk of to-day is deficient in education and a cheap article. In years gone by it was an honor to be a druggist, but there is little honor or profit in it now.

Edward S. Kelley, of Kelley & Durkee, Boston, supported the order, saying that it is one which would weed out those who are poor druggists, but good liquor sellers and nuisances in the community.

S. A. D. Sheppard said the meanest class of men in any community in the state is druggists who sell rum indiscriminately. The bill is one which should have the hearty support of the liquor dealers, as the druggist who sells liquor is interfering with the business which the former paid a high fee for.

Mr. Bancroft, of Cambridge, argued that something should be done to relieve the druggists of the necessity of filling physicians' prescriptions. He knew of a man's receiving sufficient prescriptions from a doctor to make him a drunkard.

Representative Estabrook, of Newton, said that the idea of the bill is to weed out such pharmacists as are masquerading in that disguise, while in reality being rum-sellers. He had known druggists to make drunkards of otherwise sober men.

A. L. Aldrich, of Bourne, supported the proposed law vigorously, principally on the ground that youths who are too respectable to enter low groceries will patronize the drug store where liquor is sold.

Rev. Alfred Noon, secretary of the Massachusetts Total Abstinence Society, argued very strongly in favor of the order. He said he had occasion to visit all parts of the state, and it had long become evident to him that there was a feeling of distrust everywhere among temperance people with regard to drug stores, and that he thought the bill under consideration would serve to alleviate the evil and restore confidence to a great extent.

Henry H. Faxon said he wanted to "straddle the bill," as it were. There is law enough on the statutes now with relation to druggists if it were but carried into effect. The druggists of the state can teach the devil the art of deception, and it matters not how bad a man a pharmacist is, he seems somehow or other to have friends to help him when in difficulty. If this bill were passed, spurious

doctors would arise all over the state who would issue orders or prescriptions, and the evil would be as bad as ever. The Legislature is not smart enough to pass laws which can circumvent a rascally druggist. A plain law should be passed. If anything, making the penalty six months' imprisonment without option of a fine for any druggist convicted of selling liquor illegally. He never knew a druggist yet who was so honest that he would not bear watching. His experience with law in such matters was that if you put ten words into a bill you would be obliged to go to the Supreme Court to explain the meaning of each word separately. Druggists and rum-sellers could get lawyers to defend them who were worse than they were themselves. The devil cannot be suppressed by a large fee; neither can rum-selling be stopped by this bill. The Legislature needs to make a much stronger law to convict a druggist than it does to convict a rum-seller. His experience with Jamaica singer drinkers has been that they are invariably liars.

Mr. Temple, of Sharon, said that in New Bedford, Nantucket and Canton more young men had been ruined by the drug stores than by rum-shops. He thought an amendment should be added to the order, which should make a pharmacist lose his certificate if he violated the liquor law, which should prevent him from engaging in business again.

Ex-Representative Rockwell, of Fitchburg, was heard against the bill.

Many a druggist has had good reason within the last fortnight to mutter bad things about the mayor of Everett, who, in his zeal to make a record, has been engaged in warfare on the nickel-in-the-slot machines, which sometimes give you a cigar and sometimes do not. This innocent amusement appeared to the aforesaid mayor to be so pernicious that he buckled on his armor and strode forth to put an end to it. Having convicted a man of "maintaining a lottery," he has caused so much alarm that there has been a general removal of the machines not only in Everett, but here, lest other arrests may follow.

The druggists of Malden have organized the Malden Druggists' Association, with a membership of twenty-three, including nearly every druggist in the city. The object of the association is the mutual protection and general welfare of the profession, and to foster a feeling of sociability and good feeling among its members. The officers are: President, W. B. Southworth; vice-president, J. Ingalls Street; secretary, C. A. Charles; treasurer, A. B. Morgan; standing committee, President Southworth, W. P. Sheldon, H. A. Miner, L. W. Rockwell, Jr.; J. J. McCarthy.

The Board of Registration in Pharmacy held sessions on January 23, 24 and 25, examined thirty-eight applicants and granted certificates to William M. Gowen, of Amesbury; Fred O. Churchill, of Boston; George E. Palmer, of Lynn, and John H. Moores, of Danvers.

Frank A. Barnes, a druggist at Florence, has failed, with liabilities of about \$4,000. He states that the dull times among the manufactories is the cause of failure.

A meeting of the creditors of Harry G. Travis, druggist, 25 Hanover street, has been set for May 11.

Druggists have been heavy sufferers by

fire of late. At Palmer, O. P. Allen, druggist, lost \$6,000. He was insured for \$4,000. The cause of this fire is unknown, but it is probable the electric wires were responsible. On the morning of January 31 fire was discovered in the basement of the McCarty block in Hollbrook. The flames were confined to Helyea's drug store, but smoke, water and the ax caused considerable damage and loss to other portions of the building. The stock in the drug store is a complete loss. Its value is estimated at about \$2,800, covered by insurance. In East Freetown, Heath Bros.' chemical extract works were destroyed by fire, causing a loss of \$10,000. There was an insurance of \$5,000. The fire is supposed to have caught from a defective chimney.

A wise measure has been introduced before the Massachusetts Legislature. It imposes a penalty of \$500 on anyone who shall paint on any house, barn, shed, mill or other building patent medicine or other advertisements, the letters, numbers, figures or characters of which are in length more than six inches or in breadth more than four inches. The act is not to apply in cases where the sign or advertisement is upon a building which is being otherwise used in the business which is being thus advertised. This move against disfigurement on otherwise pleasing rural scene is a commendable one. Good newspapers and magazines are good enough mediums for any kind of advertising.

Rosindale society is much stirred over the reported elopement of Arthur A. Chesley, a former drug store proprietor, and the young and pretty wife of L. Munz, the proprietor of the Rosindale Hotel. They have been missing for more than a week. Chesley came to Rosindale from Chicopee about fifteen months ago, and became the proprietor of a drug store on South street, close to the Rosindale station. He was about 22 years old, good looking and especially popular among the younger female set. He soon established himself in much favor in the village, joined the church and was a prominent participant in nearly all the social events of the place. He engaged board at the Rosindale Hotel, and for a time all went well. Mrs. Munz often called at the store, and over many a foaming glass of soda engaged in conversation with young Chesley. There was nothing significant in the visits other than their frequency, which was soon noted by gossips. Whether their stories were carried to Mr. Munz is not known, but in the course of four or five months he notified Chesley to get a new boarding place. About a fortnight ago Chesley sold out his business in the town and went away. To a few friends he confided that he was to engage in other business, and had opened an office at 297 Tremont street. His departure was much regretted by his many friends. When Mr. Munz found that his wife had disappeared he went to the Tremont street office and found that Chesley had wound up his business there. He ascertained that the druggist had driven up to the office in a hack Saturday morning and that two trunks were strapped on behind. One was his and the other was a brand new one. He placed all his personal effects in the old trunk, the hack dashed away and that was all seen of Chesley in that vicinity. All this happened the day that Mrs. Munz disappeared, so that her husband does not doubt that she went away with the young

druggist. It was learned a few days after the elopement that the runaway couple went to Nova Scotia.

Frank C. McKenna, for many years a traveling salesman for James W. Tufts, died at his room at 25 Howard street on Sunday, January 28, at 6 o'clock in the morning from a stroke of apoplexy. Mr. McKenna was known to every druggist and soda water dealer in eastern Massachusetts, to many of whom he had endeared himself by his unflinching good nature, his love of innocent fun and his unswerving integrity; while all knew him as an energetic and straightforward business man. Mr. McKenna was 35 years of age. He entered the employ of Mr. Tufts as a junior clerk in 1883, advancing rapidly from one position to another until he became one of the leading salesmen in the business. He had hosts of friends in and out of the trade, and was greatly beloved by his fellow-employees, salesmen, clerks and mechanics alike. His death was quite unexpected, as he was apparently in his usual health. He was stricken on Saturday morning. The obsequies of Mr. McKenna were held in the presence of a large throng in St. Joseph's Church, Chambers street. A requiem high mass was celebrated.

Robert Nickerson, a clerk at A. M. Burnham's drug store in Roxbury, has gone on a trip through Canada.

Cornelius Murphy, formerly with Edwin T. Leach, of Taunton, has recently taken charge of the store 64 Dover street, owned by Gilbert & Jonah.

E. I. Sawyer has opened a new drug store in the Saco block. The fixtures are of quartered white oak, made by Whittle, and the fountain is a Low art tile, manufactured by the Low Art Tile Co.

Jacob S. Potter has bought the drug store of Arthur A. Chesley, Rosindale. Mr. Potter has had eight years' experience in business in large stores. He has also been a clerk at the Rosindale stores.

According to the records of the State House the Cochrane Chemical Co.'s financial standing at the present time is as follows: Assets, real estate, \$162,775; cash, \$77,971; stock, \$158,097; miscellaneous, \$4,176; liabilities, capital, \$350,000; debts, \$33,019.

The new building which is soon to be erected for the scientific department of Yale College will be three stories high and in dimensions 60x125 feet. It will be one of the finest chemical laboratories in the country. The building will be of brick. The upper floors will be given up to a large laboratory and recitation room; the second floor by a qualitative laboratory and the first floor will be used for quantitative laboratory. The funds for the building are to be supplied from the university treasury. The cost will be about \$125,000. Work will be begun in the spring.

Andrew G. Weeks, of the Weeks & Potter Co., has been engaged in some interesting real estate transactions. Three pieces of property on Oliver street were recently transferred to him. What he paid does not appear, but the assessors value them at \$17,500. Since this purchase Mr. Weeks has bought the five-story stone mercantile building, numbered 89 and 91 Summer street. The building stands on a lot of land having an area of 2,650 square feet, which is assessed at the rate of \$26 per square foot, or a total of \$68,900 for the whole area. The building is taxed for \$21,100.

Gardner F. Daniells, broker, 46 School street, has lately had a hand in a number of interesting transactions, among which he reports the following: Percy E. Manning has sold out to Edward Jaquith the drug store at 127 Tremont street, Roxbury, and Jaquith has in turn sold to Samuel Siskind, who has been head clerk for B. F. Bradbury & Co. for a number of years; F. H. Martin has sold the drug store at 83 Leverett street to N. Sterdiant & Co.; Patrick F. Curley has sold the drug store at 117 Hampden street, Roxbury, to Gustave Desy, of Claremont, N. H.; Charles A. George's drug store at 64 Dover street has been sold to Gilbert & Jonah; George Colton's store at 155 Cambridge street has been sold to E. G. Cutler; Sturdivant Bros.' store on Leverett street, known as the West End Pharmacy, has been sold to Joseph Prodi.

There is published in Boston, annually, a useful little volume known as the "Blue Book," containing the names of all persons living in fashionable localities. Copies are kept in the best stores for customers' use, just like the regular city directory. Now a well known druggist, having had his copies stolen several times, finally decided to reserve the latest edition of the Blue Book for his own use, and let the public enjoy the edition of '91. One day the latter book disappeared. The next week the clerk of another drug store called and asked: "Is not this your Blue Book?" In reply to the question, "How did you get it?" he told this story: "A man came into the shop and asked if he could look at the Blue Book. We loaned him the latest edition. Having occasion to look at it an hour afterward, we found this one of '91 in its place; and here is the name of your firm on the inside cover!" It takes nerve to collect new books in this way.

Down in Belfast, Me., people have had the liveliest sort of a time over a discovery made in R. H. Moody's drug store. Mr. Moody's father died about ten years ago. Three weeks ago the druggist took down from a shelf a box containing some chemicals he wished to use. On the bottom of the box, where it had rested upon the shelf, there appeared to be a picture of old Dr. Moody, the druggist's father, dead and in his grave these ten years. The portrait had been ground into the bottom of the box by the action of the dirt on the shelf. Moody keeps the box on exhibition now, and turns it up for inspection to chance visitors, at the same time exhibiting a photograph of his father. Nobody has questioned the similarity yet, and the box has been exhibited to hundreds already. It is quite the fad to drive in from the back towns and look at "that box of Moody's with old Dr. Moody's face on it." Spiritualists allege that Moody, Sr., materialized, and has been at work under the box on his son's shelves. They have photographed the box. Apothecary Moody has not been converted by the spiritualists yet. He thinks it was "just luck, anyhow."

Just how seriously some folks view this discovery is evidenced by the following statement from the president of the Theosophical Society in this city. He says: "The resemblance between the photograph and the image on the box is probably significant. I do not believe that the agency of a disembodied spirit had anything to do with it. From my point of view as a theosophist, it would be looked upon about like this: Just as a picture is

photographed upon a negative plate in a camera, so upon a medium surrounding us everywhere—call it the ether—are photographed images of our persons and of our thoughts. Dr. Moody's face had been thus photographed for years upon the ether in that shop—thousands of such images exist there. One of them has become condensed upon the box. It makes no difference that the man has been dead ten years, because the images are eternal, and as to why the image did not appear on the box before, I should say that the box had only just got into the required condition of sensitiveness. If a chemist knew enough he could analyze that condition and see just when a reproduction is possible. I do not believe in the active agency of spirits, but I think that after a spirit has left the body there remains an image of the body—as it were, the cast-off clothes. That picture on the box is one of Dr. Moody's cast-off clothes."

Prof. William James, of Harvard University, was shown both the mysterious portrait and the photograph of Dr. Moody. He was greatly interested in the alleged portrait and examined it carefully. "It is certainly very curious," said Prof. James, "and I am glad to see it. But I must say that if it is a portrait at all, it does not seem to me to be a portrait of the person represented by the photograph. It seems to me, on close scrutiny with the glass, to be simply an odd and fortunate arrangement of dirt and stains. It does not appear to me that this arrangement of dirt and stains is purposely made, but it seems to have been wholly accidental. There is no reason why stains and dirt should not take this form just as well as any other. But this thing is certainly very odd and curious."

An old house standing on the corner of Main and Lexington streets, Waltham, is being remodeled, and one of the men who was working near an old chimney pulled out of a hole in the partition a rusty-looking leather box, which, on examination, was found to contain a diamond stud weighing eight carats, a pearl necklace, a bag of coins, a number of rings, two watches of antique make and a number of what, after some difficulty, were found to be deeds of some kind. There was but little there to fix the identity of the treasure; the papers were so old that only their general drift could be made out, and the coins were corroded to such an extent that their dates could not be discovered. An expert said that he thought they were Spanish doubloons, and if so, the coins alone would be worth in the neighborhood of \$250. With regard to the history of the treasure nothing can be learned. The house has always stood where it does now as long as the oldest inhabitant can remember; nothing is definitely known of its history farther back than fifty years. During that time it has been used for dwelling purposes, for a jewelry store, a postoffice and an apothecary store. It is believed that the money was hidden by the apothecary. Little was known of him except that he was very old and lived there all alone. It is possible that he may have died suddenly, without having time to tell anyone of his concealed wealth. The fact that some apothecary's vials were found in the partition would seem to point to the same explanation. Perhaps this druggist, like the late W. E. Woodward, of Roxbury, a famous collector, had a fancy for old coins and other curiosities.

PHILADELPHIA.

Philadelphia, February 10.—There is considerable opposition in this city to the increase of the dues of the N. W. D. A. from \$10 to \$25. A number of the members, especially those who do not deal in or handle patent medicines, have come to the conclusion that \$25 a year is too much, especially as they are not being benefited. The associate members, who have the same privilege as active members, except that they cannot vote, have \$15 refunded to them. One of the manufacturing chemists of this city recently sent in his resignation, at the time protesting against the increase. A few days ago he received a reply from the treasurer in which it was stated that there was a movement on foot to refund to all members who are not connected with the patent medicine business \$15, the extra dues, and until some decision was reached the resignation would be held over. Besides this manufacturer there are several others who have either resigned or intend to.

The removal of the Reading Railroad Company's depot from Ninth and Green streets to Twelfth and Market streets has caused the business men in the former section considerable loss in trade. This is especially applicable to the drug stores in the neighborhood, all of whom did a large transient business.

Frederick G. Orth, the popular druggist of Holmesburg, has his store illuminated by electricity. Mr. Orth is a jolly good fellow, and dearly loves to hear a good story as well as to tell one. It is said he has the electric light over his desk, hung in such close proximity to his head, for the reason that he believes electricity is good for heads that have parted with their hair.

A. F. Merrill & Co., southeast corner of Nineteenth and Fairmount avenue, have one of the finest stores in the city. It is well lighted and the stock is artistically displayed. Mr. Merrill is a believer in printers' ink, and he says large benefits are derived from advertising. The ever-flowing soda water fountain occupies considerable space near Nineteenth street. The whole building, which is four stories high, is owned by this firm. Merrill & Co. have just come into prominence by issuing a manifesto against the A. P. A. plan. The circular reviews the features of the plan, and after stating that the firm was placed on the "cut-off list," solicits trade for patent medicines and other goods at cut prices.

M. N. Kline, in speaking of the Detroit plan, said: "I was very much gratified to learn while in Boston that a very large percentage of retailers in that city and Massachusetts and Rhode Island generally, have organized branches of the league and are signing petitions in favor of the Detroit plan. This, it is hoped, will spread, and arrangements will be made to get petitions in favor of this plan signed by the druggists in all the principal cities in the United States. The New England druggists seem to appreciate fully that so long as proprietors will fill orders direct from retailers, especially those who cut prices, the rebate plan is an injustice to them, and they are certainly going the right way about it to have this corrected. On the other hand, I was impressed with the fact that they appear to be convinced that the days of full list prices have gone, never to re-

turn. This portion of their business they must expect to conduct on a smaller margin than in times past, but all wide-awake druggists are satisfied that they can maintain their position if they are not placed at a disadvantage in purchasing their supplies.

The thirty-third annual meeting of the Philadelphia Drug Exchange was held on January 23. After the annual report had been read and while the voting for officers and directors was in process an elaborate lunch was served which, with punch, made as only Harry McIlvaine can make it, soon put everybody in a good humor. The feature of the meeting was an impromptu discussion between Mr. Crenshaw, of Bullock & Crenshaw, and Dr. Mattison, of Ambler fame. Both are extremists, the former being a very large man and a southern Democrat, and the latter a medium-sized man and a Republican in every sense of the word.

The report, after stating that the membership was about the same as last year, proceeded:

The recent defeat in congress of what is known as the Torrey bankrupt bill, though disappointing to the hopes of its advocates, and depressing to the many thousands of unfortunates who are looking to it for relief, should not, and must not, be accepted as a final disposition of the matter. Its friends are too numerous, and the innate vitality of the movement too energetic to admit of so sorry an ending. For several years in succession the earnest efforts of business men from all sections of the country have been put forth in support of a national, and consequently, a uniform system of treatment applicable to the settlement of bankrupt estates.

A national bankrupt law is a necessity in any mercantile or manufacturing community, and if judiciously framed, will prevent, absolutely, by prompt action, the shrinkage of values and increase of costs incidental to delay, and at the same time render to the requisite legal talent engaged just recompense for services rendered. The settlement of an estate would be made as speedily as the interests at stake would permit, and creditor and debtor alike be relieved, the one by receiving all that was possible to be realized from the estate, the other by freedom to again fight his way to usefulness.

To this end must the agitation of the subject be continued. More than ever before, perhaps, the necessity for such legislation exists at the present time. The hundreds of associations and exchanges who have united in the petition to congress to pass a bankrupt law, represent many thousands of active, earnest business men, who have a right to expect favorable action upon a request which, in the interest of their fellow traders, is demanded in the name of justice and mercy. The request is so far free from political or partisan entanglements that every legislator can act conscientiously thereon, and the men who ask it are themselves largely of the creditor class, and most ready to aid those who unfortunately are in their debt.

The business men of the country are in earnest in the matter, and unwilling to let the movement go by default. We ask you once again to affirm your continued adhesion to the cause of a national bankrupt law.

The report then directed attention to the high rate of duty on imported spirits and

alcohol, and states that at present the custom duty is \$2.50 per proof gallon, equal to \$1.70 per wine gallon or 91 per cent. The internal revenue tax on distilled spirits is 90 cents per gallon. Thus the custom duty is \$2.50 per proof gallon against 90 cents internal revenue tax in the United States, making a difference on proof spirits of \$1.60 per gallon, and the suggestion is made that, with an internal revenue tax of 90 cents per proof gallon, the customs duty should be about \$1, instead of \$2.50, and with an internal revenue tax of \$1.60 on a wine gallon of 91 per cent alcohol the customs duty should be about \$2 per wine gallon, not proof gallon, as at present.

On "tariff legislation" the report said: The frequency of changes in the tariff may be said to be deplorable. Why? Because legislation of duties, to be found on correct principles should be stable, and, so to speak, immutable. Nothing more deranges finances, nothing more shakes confidence than alterations being permissible in this respect. A changeable legislation disconcerts the best planned enterprises, and baffles all business ventures. The greatest care should be taken and the utmost limit of intimation as to changes should be recorded. Inequality assured is a lesser evil than continued uncertainty, and the sooner we arrive at some definite conclusion and adopt a policy based upon principles applicable to all the better it will be for the country at large. In regard to the internal revenue tax itself it would be unwise to waste time by entering into any discussion. We have had taxes for many years, and under various administrations. We have had the whisky tax at 20 cents, and we have had it at \$2, and at various intermediate rates. Upon this tax the unanimity of sentiment favorable to its perpetuation is most remarkable, considering the incompatible character of the component parts. It would be useless to urge a reduction of the tax, and utterly folly to try to influence its removal in the matter of free alcohol for the arts and manufacturers.

When it is considered that the amount of distilled spirits consumed in the arts is very large (said to have been 10,976,542 proof gallons during the twelve months ending December 15, 1883), nothing would seem to be more natural and nothing, apparently, more reasonable and proper, than to urge free alcohol for such purposes, and so we find that almost constant reference is made to the propriety of granting exemption to manufacturers. Free spirits, whether clean, whether methylated or otherwise denaturalized, will never be permitted in this country, so long as any internal revenue tax remains on the article, no matter for what it may be intended, unless coupled by restrictions and regulations, fines and penalties, of most objectionable character, yet unavoidable. In this country bills have been formulated to give both clean and methylated spirits to manufacturers, but to manufacturers only, not to druggists; but manufacturers, as a rule have preferred the tax, rather than submit to having bonded warehouses, watchmen, storekeepers, fines, penalties, delays, hardships, expense and government espionage.

The report concludes: We regretfully announce the death of Mr. Cooper Smith, who died December 8, 1893, 56 years old, who was a continuous member of this association for twenty-five years and at

one time a member of the board of directors. On the minutes is the following tribute to his memory. By the closing of the earthly life of Cooper Smith we, in common with all who knew him, are called upon to lament the loss not only of a man of affairs whose integrity commanded universal respect, but of a gentleman whose graceful courtesy and uniform consideration endeared him to all with whom he came in contact.

The election of officers for the ensuing year resulted as follows: President, William J. Miller; vice-president, Charles E. Hires; treasurer, Edward H. Hance; secretary, William Gulager; directors, L. H. Lapp, A. H. Jones, H. B. Roengarten, M. N. Kline, Dr. A. W. Miller, Dr. H. V. Mattison, H. N. Rittenhouse, John Ferguson.

Charles D. Burk, who represents W. B. Burk & Co. in the city and near-by, has recently been given the agency of Alfred Wright's perfumes.

Monroe P. Lind, of Schandelin & Lind, is on his annual spring visit to the south. Advice recently received state that he is finding business better than he expected.

On January 31 the wholesale liquor house of Lath & Co., at Second and Vine streets, was damaged by fire to the extent of \$7,000, the origin of the fire being a mystery.

D. G. E. Musselman, who has for many years kept the drug store at the northeast corner of Twentieth and Parrish streets, contemplates making a number of improvements in the spring.

Erwin C. Shafer, who has until recently been manager of the drug store at Eighth and Green streets, has resigned to go into business for himself. He has purchased the drug store at Branchtown from Mr. Ackers.

On January 25 the American Soda Fountain Co., with headquarters in Boston, declared a quarterly dividend of 11-2 per cent on the first preferred, 2 per cent on the second preferred, and 21-2 per cent on the common stock.

The city of Chester, which is about fourteen miles south of Philadelphia, is a thriving place, and the drug stores in it are up with the times. Recently the store on the corner of Concord avenue and Seventh street was purchased by John H. Klrk from Mr. Brynes.

While Mr. A. J. Richards was examining some old files in the office of the Richards Drug Co., Marietta, O., he came across an interesting invoice from Lehman & Smith, which shows the prevailing prices of drugs in 1813. The invoice was sent to the Smith, Kline & French Co., this city, as it was presumed this house was the original Smith house, but which is not the case.

The recent examination of the Pennsylvania State Pharmaceutical Examining Board, held in this city and mentioned in the last issue of the Era, has been productive of more sorrow than joy. The result shows that only twenty-six out of 167 who applied in the registration class passed satisfactory examinations.

Druggist Niskey, one of the enterprising druggists of the twenty-ninth ward, who has from time to time been located at Ridge and Girard avenues, has gone back to his old love to stay. He is going to enlarge his store, and when it is completed he thinks it will be one of the finest in the northwestern section of the city.

Advance copies of two important pharmaceutical works have just been issued—the United States Dispensary and the National Dispensary. Both of these commentaries on the United States Pharmacopoeia follow that book in very close time, considering the vast amount of work necessary in making the revisions.

A Ridge avenue druggist has for several weeks past had an opaque jar standing in a shop window. It was stated that it contained a number of pills. Purchasers of goods were given an opportunity to guess "how many." The successful one was to receive \$20 in gold. Someone guessed seventeen and a quarter and was told he was correct. There was room in the jar for 10,000 or more pills.

A new row of houses has been recently constructed on the ground formerly occupied by the House of Refuge. The builder, Mr. Sharp, noticed that there was a dearth of drug stores in that section of the city, and he had the corner of Twenty-third and Parrish streets made into a store suitable for a druggist. He has had several offers for the building, all of which he has declined, as he wants a drug store on this corner.

Protests continue to pour in on the board of health in reference to placing tuberculosis on the list of contagious diseases. The latest came from a delegation from the college of physicians. They stated that the attempt to register consumptives, and to treat them as the subjects of contagious diseases, would be adding hardship to the lives of these unfortunates, stamping them as outcasts of society. Strict attention on the part of the physicians in charge of individual cases, insisting on proper disinfection and ventilation would meet all the requirements of the situation, as far as they could be met.

The Board of Trustees of the Philadelphia College of Pharmacy is negotiating for the purchase of an electrical plant, and the alumni association has pledged itself to raise \$3,000 to cover the expense. Some subscriptions have already been made, and more are in order.

It is proposed, when the dynamo has been placed in position, to run the elevator by electricity, and the subtle force will come in handy in a variety of ways in college work.

The January social meeting of the alumni association, held on the 23d of the month, was an enjoyable occasion. Dr. Benjamin Sharp gave an illustrated lecture on the Sandwich Islands, which was full of interest. In company with other scientists, Dr. Sharp recently visited Hawaii and made a study of its resources.

The Zeta Phi Society of the senior class entertained the students and their friends in a delightful manner last week by giving a musical entertainment, with some recitations. The talent was entirely drawn from the Zeta Phi. The society's quartet, composed of Messrs. Blackman, Rhein, Weider and Boyne, was heard in vocal selections. Mr. Campbell rendered a piano solo. Mr. Rhein a vocal solo; Mr. Thayer, violin; Mr. Barker, piano; Mr. Zeigler, declamation; Mr. Garver, declamation; Mr. Culby, guitar; Messrs. Thayer, Irvine, Miller and Thurston, instrumental quartet; Messrs. Smith, Collbach, Cully and Roseman, string quartet.

Druggist C. H. Cirkler, of Minneapolis, is opening another store and a very handsome one in the new Dayton block.

DETROIT.

"Shakespeare once said 'a little fire is quickly trodden out; which, being suffered, rivers cannot quench.' That to my mind has been the condition and the history of the cut-rate patent medicine business in Detroit," said a prominent retailer the other day. "If the business had been nipped in the bud several years ago, I do not think the present condition would have ever existed. Mark my word, Detroit is now, henceforth and forever a cut-rate town." And this is not the opinion of one man, but that of many men. If the signs of the times can be read aright the recent actions of the Detroit Pharmaceutical Society seem to indicate that a battle of no small magnitude is to be waged against the cutter. The preliminary skirmishing which led to decisive action in the matter, culminated in one of the most largely attended meetings the retail druggists have ever had. This meeting occurred February 9th, when it was agreed almost unanimously that the cutter would be met in his prices upon his own ground by the retailers present. Considerable discussion was indulged in as to whether the druggists should act concertedly or individually, and as to whether the city should be circularized to that effect. A committee was finally appointed to canvas the retail druggists of the city and report upon the matter to another meeting of the druggists called for February 16th. It is quite likely that each individual will proceed to "work" his own locality according to his own ideas and that no concerted action will be taken.

All arrangements have been made for the erection of a plant for the manufacture of bi-carbonate of soda at Trenton and work will be commenced on its erection as soon as the frost is out of the ground. Boring for a bed of salt has been carried on for several months, and at a depth of 1,185 feet a salt bed thirty-five feet thick was struck. The plant will be experimental, and if it is successful the works will be doubled next year. About one hundred men will be employed several months in putting the different arrangements in place for the opening of the works next fall. The works after completion will employ about fifty men and girls to operate them. It is also probable that the shipping department of the firm will be transferred from Brooklyn to Trenton should the experiment be a success. The works, it is estimated, will be capable of turning out from twenty-five to thirty tons a day.

George Budde, representing the Steinvogel Drug Co., called at the Era office February 3d.

Otto Kurz has opened a new store at 752 Michigan avenue. Farrand, Williams & Clark furnished the stock.

Ed Garrigues, representative of Whittall, Tatum & Co., Philadelphia, is calling upon the jobbing trade in the city.

Clarence J. Coleman, a former resident and member of the drug firm of Coleman & Devendorf, died in Chicago, January 26th.

Druggists of Menominee are considering the advisability of early closing and it is probable that the plan will be put into effect.

Brown Pharmacy Co., located at 110 Woodward avenue, corner Congress street, are to open a branch store at 180 Woodward avenue.

J. C. Moeller has opened a new drug store at C. K. Trombley's old stand, 594 Gratiot avenue. Mr. Trombley has moved to 671 Gratiot avenue.

J. B. Russell has resigned his position as superintendent of Parke, Davis & Co.'s laboratory and accepted a position with A. J. White, New York City.

Burglars effected an entrance into C. K. Trombley's store on Gratiot avenue early the morning of January 14th, but were frightened away by the police.

The Zoa Phora Medicine Co., Kalamazoo, has filed the following statement: Capital stock, \$15,000; paid in, \$15,000; personal estate, \$3,372.29; debts, \$1,035.31; credits, \$1,747.

W. Blake, druggist of Kalamazoo, left his store the night of January 27th with an oil stove burning. The store was damaged \$1,500 by fire before morning and nearly his entire stock of drugs ruined by fire and water. Insurance \$500.

On February 2nd occurred the death of Mrs. Ann E., widow of the late Alanson Sheley. She was 82 years of age and one of the pioneers in this region of country. Three children survive her, one of whom is the mother of Alanson S. Brooks, of Williams, Davis, Brooks & Co., of this city.

The fire which destroyed the store and stock of John J. Orr, at Tecumseh, mentioned in a recent issue, is thought to have originated in the cellar. Mr. Orr's loss was \$4,500, on which was \$2,100 insurance. He has made arrangements for a new store, and was recently in this city looking around after stock.

The Hazeltine & Perkins Drug Company, Grand Rapids, in its filed statement, is shown to have a capital stock of \$150,000, all paid in. Its newly-elected officers are: C. S. Hazeltine, president; C. Crawford, vice-president; M. B. Hazeltine, secretary and treasurer; H. B. Fairchild, general manager.

Frank Inglis, druggist corner State and Griswold streets, sallied forth in the defense of his rights a few days ago and brought back the following note, which explains itself and is signed by a Detroit druggist: Dear Sir—I regret very much that in some instances I have filed prescriptions calling for "Elixir of Fir Compound Inglis," with a very poor imitation of the same. I realize that this is a transgression of your rights as well as of the rights of the public, and assure you most earnestly that nothing of the sort will occur again, and feel myself bound to compensate you for any damage you may have suffered by reason thereof.

Some of the druggists in New Holland, O., are a soft lot. By the old tale of lost heirs for large estates, a plausible gentleman succeeded in getting into their confidence and also obtaining from them sundry bottles of liquor. It turns out that he was a detective, and had been employed to ferret out liquor selling druggists. Some fines have been paid and others are expected.

A nifty swindler has been operating in Massachusetts. His method was to advertise for a girl to bottle cologne. The girl, applying for the position, was required to deposit \$20. The swindler would then take his leave and never return. He travels under the name of C. Lendholt, is about 50 years of age and is said to have worked the game very satisfactorily in other places.

CHICAGO.

Chicago, February 10.—The Hyde Park marketeers have been very busily engaged for some days in hearing evidence against a large number of druggists on charges of selling liquors without licenses. The arrests number over 100 and include many well known druggists. A number of the druggists were fined \$20 each, the evidence convicting them being principally the testimony of an agent of the Liquor Dealers' Association and a detective. The druggists who have had their cases continued have held a meeting, perfected an organization and employed counsel to fight the suits being prosecuted against them. Lee M. Bonheim was chosen president, and L. F. Hogan treasurer.

Albert E. Ebert, the State street druggist, and his wife were both badly burned the evening of February 1 and Mrs. Ebert's condition is said by the attending physicians to be serious. Mr. Ebert left his drug store at 426 State street and went to his home, 376 Michigan avenue, at 10:30 o'clock. His wife served a little lunch and then he sat down to read the evening papers. Mrs. Ebert thought there was not light enough and she struck a match to light a second gas jet. It seems that a piece of the burning match fell down and ignited the bottom of her dress. The dress was made of light material and before she realized it the flames had leaped up and caught her sleeve. Mrs. Ebert is fleshy and she could not help herself very well. She called to her husband, who jumped up and tried to subdue the flames. In the shuffling that followed Mrs. Ebert fell down. During the struggle with the flames Mr. Ebert's right hand was badly burned. Mrs. Ebert's right hand and her right arm up to the shoulder were frightfully burned.

Geo. S. Lord, of Lord, Owen & Co., is spending a few weeks at Colorado Springs, Col.

Walter Sempill, of Dale & Sempill, is confined to his house with a severe attack of neuralgia.

Theodore Fisher, a leading citizen and member of the firm of Fisher & Dunean, druggists, Petersburg, Ill., died February 1, after a brief illness.

The Diamond Glue Co., of Chicago, has become incorporated with a capital stock of \$150,000. The incorporators are John Spiegel, J. R. Morron and Arnold Freshman.

O. J. Gibson, representing the Trommer Malt Co., finds it necessary to subscribe for the Era in order to be posted in the latest pharmaceutical news. Mr. Gibson makes his home in this city.

Harry Baker, a salesman in Peter Van Schaeck & Sons' wholesale drug house, 140 Lake street, has been arrested on a charge of larceny. Baker is accused of selling bills of goods and pocketing the money received.

A. R. Otis, late with Geo. H. Lohman, Kendallville, Ind., has decided to embark in the drug business on his own account. He has been spending several days in the city placing his order for a new outfit, which will probably be the handsomest in Kendallville.

Geo. H. Painter, hanged recently for murdering the Martin woman, was at one time engaged in the drug business in Brooklyn, owning a store in that city at the corner of Margueretta street and

Broadway. He was a resident of Chicago about twelve years.

J. C. H. Potter, who claims the title of consul-general of the Hawaiian government, has been arrested on a warrant sworn out by Sattler & Chalmers, druggists at 361 West Adams street. They charge him with having obtained \$25 worth of goods by false pretenses.

At a meeting of the retail druggists of Chicago, held February 6, under the auspices of the Chicago Apothecaries' Society, a resolution was adopted approving the U. T. A. plan or label system and strongly recommending that retail druggists join the association with the view of procuring its universal adoption by manufacturers, wholesalers and retailers.

BUFFALO.

Buffalo, February 10.—The drug trade is not in a strictly rushing condition. Retailers say they have a good day once in a while, and that is the best report they can make. It has been quite healthy here this winter and people are not buying drugs for fun any more than they are anything else, so the trade drags along about as everything else does. Our wholesalers are few in number and they fare better. They always report business brisk, but with a retailer on every street corner it has got to be good pocking to get much out of it. Still druggists are long suffering and, like politicians, few die and none resign, that is to say, few sell out and none fail.

There were three vanilla bean men in Buffalo last week and the way they slaughtered trade—and each other—was a caution. The first sold his goods at from \$5 to \$12 a pound and drove a fair trade. The second declared that he had a big lot obtained at auction and offered a good brand at \$4.50. The third astonished the natives by offering the very same article at \$1.75, and he was connected with one of the biggest jobbing houses in the country. Here's depreciation for you.

The sneak thief is abroad in the drug stores. A local paper has it that the plan is to get into the drug store when business is slack. The clerk is pretty sure to be at the back of the store and when he comes forward the visitor, who is a well-dressed fellow, says that he merely wants to look at the directory. The clerk retires again and the fellow watches his chance and fills his pockets with fancy articles that are usually to be found in the front part of the store. Several druggists have been taken in after this fashion this winter and they are beginning to be more watchful.

The pharmacy college students had a week of vacation the first of February. They spent the previous week in the grind of the mid-session examination and needed to take a long breath. As usual the seniors passed in very creditable papers and the juniors got up numerous surprises, some passing much better and others much worse than was expected.

A local paper makes quite a break when it announces that the Morgan memorial building, to be erected at Pearl and Niagara streets, a sky scraper if all the stories told of it are fulfilled by stories in it—is the result of a successful patent medicine business. D. S. Morgan lived at Brockport, on the Niagara Falls road from Rochester, and made a fortune in mowing machines.

This chronicle will not be complete without a somewhat detailed account of the present received last month by Dr. Itay V. Pierce, of the World's Dispensary. It is a fortune to be well known in the patent medicine business, and it is some other things besides. On January 17th a box arrived at police headquarters addressed to the chief. It had come from Bridgeport, O., and contained a letter signed D. O. Yannover, asking the chief to feed the enclosed drugs to Dr. Pierce and make sure that he swallowed them, whether he wanted them or not. The list is a very appetizing one, but is not usually included in even a doctor's bill of fare. There were two ounces of 95 per cent carbolic acid, a pint of creosote, a half ounce of croton oil, two grains of sulphate of morphia, a half pound of sugar of lead, a half pound of Paris green, a dram of chromic acid, two ounces of metallic mercury, two ounces of sulphuric acid, two ounces of nitric acid, and a half pound of something that appeared to be rat poison. In view of the large proportion of caustics in the lot it is plain that the doctor was supposed to be no ordinary subject. All the packages were lately put up, the caustics not having eaten into the corks of the bottles to any extent. There had plainly been an effort to conceal the name of the druggist, for all names had been erased from the labels. The preparations were of good quality and showed that Bridgeport knows and handles the genuine. There is no druggist named Yannover in that town and Dr. Pierce thinks the package is from some crazy crank, especially as he has never been in Bridgeport. He looks upon the affair as a poor joke, though he thinks it quite likely that nobody would have spent several dollars and taken as much trouble for the fun of the thing. An effort has been made to discover the fellow in order to look into his sanity, but nothing has come of it. The name appears to have been fictitious. This is the only sane part of the transaction, as cranks do not generally succeed in concealing their names and some do not try.

Russell Elliott, Ph. G., B. C. P., '89, has gone to Dayton, O., to buy out one of the largest drug stores in that town. The name of the house was not learned.

Low's Art Tile Soda Fountain Co. reports to the state under the new corporation law a capital of \$100,000, of which \$73,000 is issued, assets \$79,000 and debts \$39,000.

Dr. A. L. Benedict, instructor in botany at the college of pharmacy, has resigned his position as district physician in the city health department, finding it impossible to carry all these branches and at the same time attend to his practice.

Health Physician Wende has changed his lecture evening at the pharmacy college from Thursday to Tuesday so that he can have a better chance to wrestle with the aldermen on committee night. He is a very resolute physician and takes no back seat for anybody.

The county board of pharmacy received only two applicants for examination at the first February meeting. Four certificates were granted at the January meeting as follows: Pharmacists to Robert D. Douglas, assistant to Alfred F. Kuhn; Edward E. Miller and Martin Manger.

This is a bad winter for drug clerks. They are more plenty than usual and the demand is light. For this reason those

with positions are holding fast to them with all their might. Some of them are saying on the quiet that they are not satisfied with their places, but they are not going to throw them up till the times are better.

The dispensary connected with the college of pharmacy is ministering to above 50 patients daily. During the midwinter vacation Charles Kelley, of the junior class, has been engaged in putting the dispensary to rights, for which disinterested service he deserves everybody's thanks. He has done the work very neatly.

The managers of the Victor Mineral Water Co. are at a loss to know how the reputation of the water spreads as it does, for it is not advertised out of the city, but orders for quantities of it come in quite frequently from distant towns. There is a move to increase the capital and erect a sanitarium on the lot next season.

There is talk among the members of the county board of pharmacy of proposing a law that will include the rural districts in the provisions of the act requiring examinations of druggists. The proposition may not be made now, for it is said that the county druggists, especially such of them as don't know epsom salts from jalap, would oppose such a bill, and as it would benefit Erie county only in a general way the task is rather a thankless one. Perhaps the first move will be made by getting the state association interested in the idea.

One of our up-town druggists who has been taking some daring liberties with the English language and a piece of charcoal is still unrepentant and proposes to perpetrate another "ad" of the same sort. Having some shaving cups in the window he posted some charcoal drawings of a Chinaman over them and called attention to "This China Mug." Now the new medicine "Frog in the Throat," affords another opportunity and the cut of a man with a literal frog going up or going down his throat, the direction is not settled yet, will soon appear with the legend, "Take him out for ten cents" attached.

Dr. Huested, president of the New York state board of pharmacy, says that the board favors the re-registration of licentiates, but nothing has been done about it yet. Before any such measure can hope to become a law it will have to be passed by the legislative committee of the state association, of which C. O. Rano, of Buffalo, is chairman. The bill obliging patent medicine manufacturers to publish their formulas on their goods is abroad, but it may not be pushed. Though somewhat similar to the famous "strike" bill of last winter, which was fought so generally by druggists and killed, it gives no official the arbitrary power that was conferred by the other.

The county board of pharmacy is getting somewhat weary of the state board on account of its laxness and thinks it would like to give the larger body a poke if the way should offer. It is discouraging to be obliged to accept the state board's certificates and then find that they are obtained in a way that would never be thought of here. Young fellows will come to the college for about six weeks, grind hard on the subjects which are supposed to most likely come up in an examination and then go and pass the state board flying. It is believed that these lax methods are growing worse.

INDIANAPOLIS.

Druggist W. C. Burk and wife, of Thorntown, are making a four weeks' tour through the south.

T. E. Bradshaw, Thorntown, who has been confined in his room for several weeks, is on the mend now.

V. C. Meloy has bought the drug store of E. B. Doll at North Vernon. The latter remains with his successor.

The cutter still spasmodically gets big ads. In the papers and the legitimates wonder how he manages to pay for them. One case of small-pox in South Bend has caused a small quarantine and a consequent demand for virus and disinfectants.

"Very good" is the wholesalers' answer to the inquiry "How's business?" The retailers still grumble a little about the scarcity of money.

J. W. Danhour, the leading druggist in Clay City, was married to Miss Bertha Ross, an estimable young woman of Brazil, on the evening of January 31.

The case against druggist George B. Bennett, of Terre Haute, charged with using the mails to defraud, was opened on the 13th inst. Forgery is also laid at Bennett's door.

The 11 o'clock closing hour law is being strictly enforced by the Indianapolis police authorities and the saloonkeepers continue to charge that the drug stores take up the business from that hour on.

A very successful prepared food exhibit was held in the largest hall in this city on January 29, 30, 31. The products were donated by the manufacturers to a charitable society and were sold to and eaten by profitable patrons.

Manager Carey, of the "Old Gibraltar" drug house, is spending a month at the Midwinter Fair, the guest of R. E. F. Pierce, in whose private car the trip was made. In the meantime the house's interests are being looked after by "Doc" Olcutt, the manager's able lieutenant.

A coal dropped from the stove to the floor in R. A. Brennan's notion store in Evansville on the evening of January 29, starting a fire which destroyed stock and building, the west wall of which fell and crushed in the rear of Dr. Wm. Alexander's drug store, destroying \$500 worth of stock. Other buildings crushed were owned by the doctor, running his loss up to \$10,000, fully insured.

A Scotch-accented woman has been playing the silverware game on many Indianapolis people. Just landed here, without friends—must sell her old country tableware—last thing she has—in order to buy food. Makes the sale at a sacrifice (which turns out to be a good profit) and then moves on to the next innocent. Druggist J. D. Gauld, of Indiana avenue, vice-president of the Caledonia Society, was one of her first and easiest victims.

Recent mistakes of druggists have caused a revival of talk in favor of more stringent statutes governing the prescription business. The essential demanded is that prescription clerks should be educated well enough not only not to blunder themselves but to detect errors of doctors. An instance: A hurried physician writes a prescription calling for six grains of a deadly poison. Druggist called doctor by telephone to ask if there wasn't some mistake. "Great God," exclaimed the doctor, "did I write six grains. I meant one-sixth of a grain. I'll come right down."

A sensation in druggist circles was created by the arrest of George F. Yeager, 305 Virginia avenue, Sunday night last, on a charge of criminal malpractice, on information furnished by the physicians who attended Mrs. Teresa Balsler, a woman in the neighborhood who died the night before. The woman admitted to the doctor that a criminal operation had been performed on her by Yeager. Before the coroner the druggist said he had attended Mrs. Balsler without a physician's license, although he is now a student at one of the medical colleges here. He used instruments upon her, he says, but he employed no methods forbidden by law and is guilty of no crime. He charged her \$10 on her first visit to the store. On a preliminary examination he has been held for action by the grand jury. He is between 40 and 50 years of age and has a family.

"Col. Lilly," this city's famous manufacturing pharmacist, has been having a time of it the last three months. He is the commercial leader of the city, being at the head of the club that has the commercial interests and welfare of Indianapolis in hand. He had charge last year of perhaps the best-conducted Grand Army Encampment that has ever been held. He was economical and saved many thousands of dollars of the expected expense. After it was over, however, he voted \$5,000 of the savings to the club's secretary and asserted that another \$12,000 were properly the club's "earnings." The money was raised by popular subscription and by vote of the city council. There has been and still is a hubbub about it and the principal paper here scores him daily. In the meantime the Commercial Club directors have had a life-size portrait of him painted and hung in the club's assembly hall.

Druggist A. A. Gould, of North Indianapolis, had an exciting experience on the night of the 1st inst. After counting his day's receipts he "locked up" about 9 o'clock and started to his home about four blocks away, noticing casually three or four men on the corner as he walked off. At the gate to his house, which stands some lots away from others on the same street he was passed by two men. "Good evening, gentlemen," said he, but they did not answer. Instead one grabbed him by the shoulder and another held a revolver to his head. "I guess you've got me," said Andy, laughing at the joke he thought two of his friends were playing upon him. They did not speak, but endeavored to throw him. Although he had his books under one arm he entered into the "rattle" with zest. It was not until they threw him face down into the gravelled walk and hit him a stinging blow back of the ear that he began to doubt the funniness of the proceeding. Then he called out "Emma," which was his wife's name. They hit him twice again, but his better half thought she heard the muffled sound of her name when he called the second time, and opened the door. The light caused the flight of the highwaymen. The hand of the arm that held his books was in his overcoat pocket, where \$60 lay in crumpled bills. One of the robbers had his hand in the same pocket, but couldn't get the cash from the owner's grasp. Andy is still a tough looking sight and wouldn't present a much worse appearance if he had run against Corbett.

CINCINNATI.

Cincinnati, February 10.—The annual meeting of the wholesale druggists of Ohio, Indiana and Kentucky was held at the Burnet House on Thursday, January 24th. The local men present acted as an entertainment committee and saw that nothing was left undone to add to the pleasure of their visiting brethren. A scale of prices was talked about and cutting indiscriminately was frowned down. After the routine business of the convention had been transacted the following officers were elected: President, Ashley Lloyd, Cincinnati; vice-president, Fred Renz, Louisville, Ky., and George W. Lattimer, of Columbus, secretary and treasurer, board of directors, Messrs. Stein, of Cincinnati; Benj. Neat, of Louisville, and John Carey, of Louisville. The banquet was a triumph of the epicurean art. The menu was elaborate and the wholesale dispensers of drugs went from soup to nuts in a manner that was beneficial for sore optics. The decorations provided by nine host Tom Zimmerman were up to date and were emblematic of the occasion. A beautiful mortar and pestle made of white chrysanthemums and trimmed with yellow roses made a most imposing emblem on the center table of the spacious dining hall. A large traveling grip made of beautiful carnations and lilies of the valley greeted the delegates as they marched arm in arm into the banquet hall. In one corner of the room a string orchestra of forty pieces rendered some late and popular airs, while the drug dispensers feasted at the mahogany.

SAID BETWEEN BITES.—"Billy" Hale couldn't tarry very long, as he was dated for a swell dinner in Avondale.

Charley Frick, of Louisville, told some jokes he played on George Hummel, his traveling partner.

George Lattimer had a few things to say about Governor McKinley's second inauguration.

Otto Rauchfuss told how nicely he managed to get along with his partner, C. P. Calvert.

"Billy" Walding, of Toledo, said Hamilton county was O. K., but that Lucas county suited him better.

Otto Stein briefly told his troubles about convincing a well-known retailer that he was getting value received for his money.

"Billy" Schmidt, of Indianapolis, said the Hoosier capital was full of politicians who knew a thing or two.

J. D. Price, of Columbus, hummed pieces to himself as he discussed the rather lengthy menu.

M. C. Peter, of Louisville, told a few yarns about prominent druggists of the Falls City.

George Budde, the affable city salesman for the Stein-Vogeler Drug Company, has just returned from a trip to Detroit.

John Haynes, formerly a well-known druggist of this city, is now traveling for Lehn & Fink, New York Importers of drugs and chemicals. John is due in the Queen City on or about June 1st.

L. D. Shreck, the druggist at John and Liberty streets, has sold his store to H. W. Stegemiller. The latter is a clever young pharmacist who has a legion of friends in the west end.

The beautiful village of Avondale now boasts of four first class pharmacies. The new store started by Fred Fuldner

is a beauty and he reports business very good for a starter. The store is located at Hutchins and Main avenues.

A rumor has been extant in this city for some time past that M. C. Dow would soon open cut-rate drug stores over-the-hill and in Walnut Hills, and Miss Cora Dow was seen and stated that the rumor was somewhat premature.

Local druggists are making preparations for the May meeting of the Ohio Pharmaceutical Association, which will be held in this city. Music Hall will likely be engaged, and the various wholesale houses will eclipse all previous displays.

John F. Byrne, the druggist at Spring and High streets, Columbus, was in the city a few days ago in the interest of the Retail Druggists' Insurance Company. He was the guest of John Meyer, ex-member of the Ohio Board of Pharmacy.

The handsome new drug store of M. C. Dow in the Grand Hotel block at Fourth and Central avenue opened a short time ago. The fixtures were made by Bangs and are of natural wood. Miss Dow and her father now control three cut-rate drug stores in this city.

Thieves broke into Ellinger's drug store at Baymiller and Clark streets the other night and in their rounds about the pharmacy encountered the clerk, Arthur Riggs. The latter pulled his revolver and fired at the midnight marauders, but they managed to escape uninjured.

Henry Grodel, who has conducted the cut-rate drug store at the corner of Walnut and Allison streets for several years past, has sold his pharmacy to A. Brueggemann. The latter is well known here, although he has been clerking in a large retail store in New York for the past five years.

Dr. R. H. Weatherhead, the druggist at Sixth and Vine streets, is steadily increasing his real estate holdings in Walnut Hills and Avondale. The doctor generally builds a few cottages on the hill every spring. He is doubtless advised to do this by Geo. B. Keeper, the street railroad magnate, who is his bosom friend.

Michael Hornbeck & Co. have purchased the time-honored pharmacy at Main and Woodward streets, in which the late Chas. Witterstein amassed a competency. The store is one of the oldest in the city. Mr. Hornbeck has clerked in several of the largest down-town pharmacies and is quite popular with the trade.

"We've got to come to it," said Dr. John C. Otis the other evening as he was arranging his front show window with the leading patent medicines marked at cut-down prices in red ink. "You've either got to sell them at the published cut price or allow them to set on the shelf. I for one believe in turning my money over."

The Cincinnati Paint Club held its annual election and banquet at the Burnet House last Thursday night. Seated at the banquet table were nearly all of the prominent paint, oil and drug men in the city. The following officers were elected: President, John B. Elmhuy; vice-president, Ira D. Washburn; secretary, L. E. Hearne; treasurer, W. C. Peale.

W. H. Byrne, the young druggist in Clifton, says he is able to make a good speech on the annexation question. The barons of that classic village congregate at his pharmacy mornings and nights and while waiting for their cars discuss

the all absorbing annexation question. The annexation of Clifton will add three druggists to the already large list in the Queen City.

The pharmacy opened a short time ago in the new odd Fellows' Temple at Seventh and Elm streets by Martin Dodsworth, is well arranged, notwithstanding the total absence of signs on the outside of the building. Mr. Dodsworth is not a believer in external legends. His aversion to sign boards comes from his intimacy with physicians who have an abhorrence for signs.

Edward Voss, the druggist at Twelfth and Vine, is interested in the recent invention of an intestinal tube for exploring the pylorus and other intestines. Dr. George Robbman, assistant demonstrator of anatomy at the Ohio Medical College, is the inventor. The new tube can also be used for administering medicine. It was tried at the City Hospital a few days ago in the presence of a number of physicians and druggists.

A number of retail druggists in this city are complaining about the scarcity of retail clerks. A movement is on foot by which these pharmacists expect to make satisfactory arrangements with colleges of pharmacy students to act in the above capacity. The movement is now in its infancy, but every druggist spoken to is in favor of the plan. The druggists who need retail clerks are as a rule conducting small pharmacies on the hill tops and in the suburbs.

Since Wilmot J. Hall has become the owner of two flourishing retail drug stores he hasn't had time even to attend the theater. The store at Fourth and Walnut, conducted for a score of years by the late Ernst Wilfert, promises to be a big winner under Hall's conservative manager. Hall's Pharmacy at Fourth and Elm is also a paying store, but Wilmot is so busy extolling the merits of Forbes' Diastase that he pays little attention to the details of the business.

The old Hermance drug store in Covington is for the second time in the hands of an assignee. This pharmacy has been located at Fourth and Scott streets for almost a half century and is one of the best known stores across the river. The business since Mr. Hermance's death has been operated by Edward W. Knese, a well-known druggist. The business has not been prospering of late and an assignment was made to the Covington Trust Company for the benefit of creditors. Dull business and slow collections caused the second failure.

Gustav Fechter, a drug clerk living in Newport, was arrested a few days ago at the instance of the Standard Drug Company. Fechter has been out of work for the past five months. He formerly worked for Hale, Justis & Co., but was discharged because the firm thought he was stealing from the house. There was no positive evidence, however, that he ever robbed the last named firm. For the past few weeks he has been visiting the Standard Drug Company and on each trip he would ask to use the telephone. His request was always granted and it is claimed Fechter would seize packages on his way to the instrument. When the firm took stock some time ago they discovered some stuff missing and the finger of suspicion pointed toward Fechter. He called later and was caught taking an ounce of phenacetine. His arrest followed. Fechter is a married man.

CLEVELAND.

Cleveland, February 8.—Abbott's perennial pharmacy bill has made its appearance before the general assembly. Under its provisions every person practicing or engaged in pharmacy must be registered.

Prof. Treat, of Geneva, is gaining gratifying results with his chemistry class.

The Glidden & Joy Varnish Co. had its corporation name changed to the Glidden Varnish Co.

A decision of the Supreme Court as to the validity of the state cigarette law is early expected.

Harry J. Seaman, representing J. M. Combs & Co., of Los Angeles, Cal., is among late arrivals.

Harry Woodburn, of the office personnel of Benton, Myers & Co., died January 27th of typhoid fever.

Resolutions were drafted and adopted by the C. P. A. on the death of Levi E. Hinkle, at its last meeting.

Michael Gerstaker, of the west side, hopes to be at his post of duty within a short time. Kidney trouble is his ailment.

Chris. Emde, formerly manager of Fred Emde's pharmacy, has entered the employ of Geo. Voss, the Woodland avenue druggist.

H. W. Stecher is undergoing ocular treatment. His many co-sufferers among the drug trade know how to sympathize with him.

Mrs. George Grand-Girard, the wife of the Circleville druggist of that name, has lost her reason through fright. A tramp is the cause.

Dryfoos & Richmond have opened laboratories and storerooms at Canal and Seneca streets. They will principally manufacture chemicals.

The Pekin Chinese Medicine Co., which claims origin in Pekin, China, has selected Cleveland as headquarters for the United States and Canada.

The engagement of Miss Maud McKevim, daughter of W. W. McKevim, the Youngstown druggist, and Bert E. Lee, a Chicago lawyer, is announced.

Strong, Cobb & Co. have declared a 10 per cent reduction in wages. This was made necessary by a deterioration in values rather than a contraction of trade.

F. M. Goblright, representing A. C. Meyer & Co., Baltimore, Md.; Ed. Giltner, representing F. J. Cheney & Co., Toledo, O., are guests of the Striebinger House.

Fred C. Emde, who recently sold his drug store in the east end, will erect a \$3,000 building on East Prospect, corner Watkins street. It is said that Mr. Emde will re-engage in the drug business at a near date.

Schellentrager & Hoehn is now the name over the door of Fred Emde's old place in the east end. George Hoehn has transferred his activity to the newly acquired quarters and has Henry Toedtman, formerly of Fort Wayne, as assistant.

The quasi subsidized press of the state is vehemently opposing the passage of either of the medical registration bills, although both allow advertising. The reasons therefor are obvious. The issue is fought on the ground that class legislation is un-American.

An enterprising individual has been going the rounds selling celluloid insoles at fifty cents a piece with the proviso that Meyer & Glem, as Cleveland agents,

would replace any unsatisfactory article free of charge. Meyer & Glem find the fellow a rank impostor.

Fred C. Schellentrager, a son of E. A., has engaged with Nielson, the Milwaukee avenue druggist, Chicago. Chicago experience, they say, is to a druggist what Boston experience may be to a pedagogue. Besides Freddie will learn the contrast between an indulgent home and the cold, strange world.

The demise of Levi E. Hinkle, the promising young Pearl street druggist, came as a shock to the trade. Although he had been indisposed for several months prior to his death, there was no cause for apprehension. Heart failure is given as the immediate cause of his death. The remains were taken to Chargin Falls for burial.

The retail trade in January fell far below expectations, with receipts about 20 per cent short of last month, not considering the holiday influx. This condition will hardly ameliorate during February and not likely during March. The spirit of economizing becomes more intensified with the continued stagnation and the grinding down of wages. Even necessities are curtailed or dispensed with, and were it not for the clement winter, the many serious neglects of a dietary, hygienic or sanitary character would naturally entail a frightful number of fatalities.

E. A. Schellentrager may be made a party to the interesting controversy now pending between his friend Ernst Fuchs, the celebrated sculptor, and the Frenchman, MacMonnies, who is charged with appropriating Fuchs' model of the Columbian fountain and carrying it into execution without an apparent attempt to deceive through alterations. On his last pilgrimage to his native haunts, Mr. Schellentrager met and befriended Mr. Fuchs, and was then made acquainted with the plans of the young sculptor relative to the Columbian fountain and the Spectatorium enterprise which was never finished. It is probable that Mr. Schellentrager will appear before the court of arbiters to be convened upon Mr. Fuchs' arrival.

ATLANTA, GA.

Atlanta, February 8.—On the night of January 9th Jacobs' Pharmacy, one of the largest drug stores in the south, corner Peachtree and Marietta streets, was badly damaged by fire. The third floor was completely wrecked and the first and second floors and stock were badly damaged with water, the loss being estimated at \$100,000 with an insurance of \$50,000. The firm secured temporary quarters a few doors from their old stand, where they remained until February 2d, when they moved back into their former place of business. On the following day the building collapsed, entailing another loss upon the firm. Fortunately no one was injured.

W. G. Norman has opened a new store at Hickory, N. C.

E. M. Berry has opened a new store on Peachtree street.

Thomas Reese has opened a new pharmacy at Charlotte, N. C.

McFall & Thomas have opened a very handsome store at 238 Main street, Danville, Va.

C. M. Law, representing Tarrant & Co.,

of New York, has been in the city for several days.

T. C. Pace, druggist, Richmond, Va., died from the effects of spinal disease a few weeks ago.

P. W. Gray & Son are opening a new store, corner Broad and Summer streets, Nashville, Tenn.

R. V. D. Jones, of New Berne, N. C., has accepted a position with J. C. Munds, Wilmington, N. C.

David Bros., Morgantown, N. C., were damaged by fire to the extent of \$500. Covered by insurance.

The Pemberton Medicine Co., of this city, has been incorporated under the name of the Wine of Coca Co.

Dr. W. A. Wright, Barnesville, Ga., has torn down his store on Main street and will put up a handsome building.

Max Bloomstein, Nashville, Tenn., who was burned out some time ago, has opened up again, opposite his old stand.

Marcus Wight, manager of the advertising department for the J. C. Ayer Medical Co., Lowell, Mass., is in the city.

M. O. Johnson, of South Carolina, more recently from Atlanta, has accepted a position with W. C. Munds, Wilmington, N. C.

W. E. Brown & Co.'s pharmacy, Manning, S. C., was destroyed by fire several days ago. Partially covered by insurance.

William Carmichael, agent for the Gate City Oil Co., McDonough, Ga., shot and fatally injured Chas. Vestbrook, an employe.

The King's Royal Germetuer Company has removed its office and warehouses from 40 North Broad street to 77 Edge-wood avenue.

Wineman's drug store, on Central avenue, Summerville, S. C., was totally destroyed by fire January 16th. Covered by insurance.

H. M. Lee, formerly in the employ of Chas. O. Tyner, will shortly open a new store in the National Hotel building, Peachtree street.

The city council of Nashville, Tenn., has appropriated \$5,000 for vaccinating purposes, to prevent the spread of small-pox in that city.

A. S. Thomas and P. C. Sneed, Durham, N. C., have formed a co-partnership and purchased the business of E. D. Fisher in the same town.

H. M. Lee has opened a strictly prescription store in the National Hotel building, Peachtree street. He styles it "an ethical pharmacy."

Dr. W. H. Ingram, professor of pharmacy at the Atlanta College of Pharmacy, was married February 5 to Miss Loy McAfee, of this city.

Dr. W. H. Nicolson, Louisburg, N. C., has built and now occupies the store corner Main and Nash streets. It is under the management of A. S. Davis.

A. L. Scott, formerly with H. L. Fentress, Wilmington, N. C., has resigned his position and will probably open a new drug store in the near future. He will be succeeded by Mr. Higgs, formerly in the employ of the Wilson Drug Co., Wilson, N. C.

The druggists and city council of Columbus, Ga., are in a wrangle about furnishing that city with medicines for 1834. One bid, signed by all the druggists for \$1,500 was sent in. This was neglected because it was too high, and new bids were advertised for. There is talk of a city dispensary.

MICHIGAN UNIVERSITY NOTES.

Ann Arbor, February 8. Perhaps the most substantial advance made in the direction of general employment of the metric system by the pharmaceutical and medical professions was its absolute adoption by the Committee of Revision for the Pharmacopoeia of 1890. In spite of the fact that it has been taught for years in all teaching institutions of pharmacy, it has never received the practical encouragement from either profession that it deserved. In view of those facts it is pleasant to note that the metric system exclusively is taught and used in the Medical Department of the University of Michigan. A united effort on the part of all colleges of medicine, together with the influence exerted by the pharmacy schools, must gradually tend to the universal employment of this, the only scientific standard of weights and measures.

The fine prescription case and work table that were manufactured according to Prof. Stevens' own designs and presented to the School of Pharmacy several years ago by T. H. Hinchman, of Detroit, have been removed from the museum on the third floor to more convenient quarters in the pharmaceutical laboratory on the first floor. The abundance of light and space, and the close proximity to the pharmacy storeroom make the location admirably adapted for successful work in the art of dispensing. Beginning with the second semester, the seniors will receive daily drill in compounding difficult prescriptions taken from the files of our city drug stores.

Three of the large cabinet cases that contained a part of the educational exhibit of the University at the World's Columbian Exposition have been placed in the Pharmacy Museum, thus giving much needed display room for the rapidly growing collection.

Of the graduating class of 1893, we are able to report the following appointments to higher positions of credit: Geo. Wagner, Ph. C., assistant to Prof. W. K. Higley, Ph. C. '83, in botany and pharmacognosy at the College of Pharmacy of Northwestern University, Chicago; Chas. E. Jackson, Ph. C., chemist with W. C. Merrell Chemical Co., Cincinnati, O.; Carl E. Smith, Ph. C., with E. R. Squibb & Sons, Brooklyn, N. Y.; L. D. Havenhill, Ph. C., assistant in pharmacy, University of Michigan; D. L. Davoli, Jr., assistant in qualitative analysis, University of Michigan; B. C. Hesse, Ph. C. '89, B. S. '93, fellowship in chemistry, Chicago University.

With but one exception, all of the graduates in chemistry in 1893 are engaged in chemical teaching, as follows: D. Anderson, Jr., University of Wisconsin; Henry H. Denham, Cornell University; Miss Mary F. Leach, Smith College; Samuel Osborn, University of Nebraska; Joseph F. Merrill, University of Utah; Paul H. Seymour, Lake Forest University, Chicago; Geo. O. Higley, University of Michigan.

The university has just cause for being congratulated upon receiving from Mr. F. Stearns, of Detroit, his magnificent and valuable collection of mounted fishes and water color paintings of fishes. Mr. Stearns has always been a loyal friend to the university and takes great interest in its affairs and growth. The pharmacy department, especially, has been most generously remembered upon several

occasions, and to him we owe, in a great measure, the equipment of our museum. He not only personally furnished all the wall cases that contain the various exhibits, but was instrumental in securing for the school the Stearns collection of crude drugs from the firm of F. Stearns & Co., Detroit.

The junior pharmacy class were examined just before the holidays. In the short course preceding pharmacognosy proper and which treats of the source, manufacture, pharmacopoeial requirements, doses, adulterations and identification of the salts and solid acids of the Pharmacopoeia. As a part of the practical test of their ability to identify these drugs, it became necessary for them to taste nearly all of the fifty to sixty specimens submitted for examination. This is an ordeal not anticipated with great pleasure. However, the satisfaction of being able to positively identify at least the required 75 per cent of fresh samples more than compensates for the discomfort experienced. They are now reviewing the morphology of the plant, preparatory to practical work to be taken up in the microscopical laboratory.

A. E. Mummery, Ph. C. '86, who has been with Frank Ingalls, of Detroit, for the past two years, contemplates opening a new drug store on Washington street, this city.

BOARDS OF PHARMACY.

Minnesota Board of Pharmacy held its first practical examinations at the college of pharmacy at the state university January 16. Previously the examinations have been principally written, but in the future practical work in compounding and dispensing prescriptions will be a most important feature of the examination. The class numbered forty-five, and twenty-two out of this number passed as full-fledged pharmacists: Harry H. Hazeltine, Edward H. Houghton, Ernest F. Haglund, William F. Michel, Fred W. Schmidt Martin Nelson, all of Minneapolis; C. Prescott Wyman, Duluth; John Frisch, St. Charles; James Henderson, Paynesville; Adolph G. Laack, Rochester, and Larry L. Urheim, Eau Claire.

Assistants: Arthur Archibald, Louis P. Haish, Patrick Dube, Henry T. Kertson, Minneapolis; Peter R. Lorensen and Nels Nelson, St. Paul; Herman N. Tollefson, Kasson; John McGraw, Winona; Eugene Pfeiffer, New Ulm; James H. Tyrrell, Grand Meadow; Thomas J. Griffith, Mantokato.

In future, or until further notice, the examinations will be conducted in the laboratory of the college of pharmacy, state university, Minneapolis, and will consist of the reading and compounding of prescriptions and the manufacture of simple official pharmaceutical preparations. In practical work the candidate will be marked on methods employed, accuracy and general appearance of the finished product or prescription. In addition, the candidate will be given the usual examination in pharmacognosy and both oral and written questions in pharmaceutical chemistry, theoretical pharmacy, posology and toxicology.

Examinations are held every ninety days, commencing on the third Tuesday in January, April, July and October.

The North Dakota Board of Pharmacy has postponed its regular meeting to March 14 at Fargo.

Missouri Board of Pharmacy will hold its next examination meeting Monday April 9, in Kansas City at the Coates House. The examination will be based on the pharmacopoeia of 1890.

Michigan Board of Pharmacy meets at Grand Rapids, Tuesday and Wednesday, March 6 and 7, for the purpose of examining candidates for registration. Examinations will also be held at Detroit (Star Island) June 25 and 26; Houghton about September 1; Lansing, November 6 and 7.

Illinois Board of Pharmacy at a meeting held January 9th for examination passed as registered pharmacists C. W. Armstrong, Decatur; C. A. Dresbach, Decatur; E. E. Kennedy, Bethany, and E. H. Thomas, Argenta. Passed as assistant pharmacists: E. M. Bunnell, Dixon; H. H. Pinney, Wilmington; S. Suter, Bloomington, and W. G. Williams, Quincy.

The Iowa Pharmacy Commission has issued certificates to the following successful candidates who passed its examination January 19 at Des Moines: L. A. Cushman, Sanborn; C. Ootole, Estherville; I. N. Wickman, Oskaloosa, E. C. Will, Marshalltown; S. H. Bell, Van Horne; O. M. Drummond, Mount Pleasant; Edward Buckner, Bellevue.

The New Hampshire Commission of Pharmacy, at a session held in Concord, January 24, declared the following candidates to have successfully passed the examination: John C. Parker, Farmington; E. S. Woodward, Lancaster; C. S. Perry, Hillsboro; J. J. Kernin, Manchester; E. H. Thompson, Wolfboro. Those passing the junior examination were P. H. Brown, Farmington; A. W. Vittum and W. F. Plummer, Dover.

Pennsylvania Pharmaceutical Examining Board held an examination in the Central High School at Philadelphia on Saturday, January 29, 1894. Three hundred and forty candidates appeared for examination, 167 applying for Registered Pharmacists' Certificates, and 173 for Qualified Assistants' Certificates. Twenty-six of the former and sixty-four of the latter class were successful. The next examination will be held at Harrisburg in April.

The Oklahoma Board of Pharmacy met in regular session at El Reno January 2. There were present for examination thirty-four, of which fourteen passed a satisfactory examination. Six others registered by virtue of being graduates of reputable schools of pharmacy. Following are the names of the successful ones: G. W. Baker, Alva; W. R. Kelly, Watonga; A. J. Kirkpatrick, Oklahoma City; R. M. Scott, Oklahoma City; A. L. Engle, El Reno; L. F. Michael, Ponca City; Geo. Lage, Newkirk; T. H. Varner, Stillwater; Charles A. Doty, Fond Creek; R. D. Reynolds, Cloud Chief; L. E. Garnett, Perry; E. R. Thomas, Perkins; E. R. Case, Newkirk; F. B. Beller, Perry.

Graduates: L. J. Hord, Cross; J. H. Miller, Newkirk; H. L. Rankin, Gray Horse; W. A. Ziemondorf, Enid; J. A. Settle, Yukon; A. H. Engle, Perry.

This was the largest attendance since the organization of the board. The next meeting will be held at Perry, Oklahoma, on the 3d day of April.

Connecticut Pharmaceutical Association held its eighteenth annual meeting in the Y. M. C. A. building, Hartford, February 6 and 7.



SAMUEL W. FAIRCHILD.



BENJ. T. FAIRCHILD.



MACOMB G. FOSTER.

FAIRCHILD BROS. & FOSTER.

(See page 182.)

TRADE COMMENT.

DIRECTORY SUPPLEMENTS.

The third (1890) edition of the Era Druggists Directory has now been issued, and the regular publication of the "Supplements" to this new edition was begun in the (February 1st) issue of The Pharmaceutical Era. We solicit from our readers information regarding any changes among the drug stores in their locality, such as new stores, removals, sales, failures, deaths, etc., etc. Address

D. O. HAYNES & CO., Publishers,
DETROIT, MICH.

A new bottle stopper has been patented recently which is made of fibrous pulp, compressed into shape, permeated by a liquid and acid-proof material and hardened by baking.

The Yergin Chemical Co., Incalls, Ind., is erecting a plant at that place for the manufacture of heavy chemicals, such as coppers, sal soda, glauher salts, phosphate of lime, etc.

Grand-Girard & Co., wholesale commission druggists and manufacturers' agents, is a new concern at Grand Rapids, Mich. They buy and sell drug stores and handle specialties on commission. The business is under the supervision of J. A. Gibb.

Behold, the fool saith: "Put not all mine eggs in one basket," which is but a manner of saying, "scatter your money and your attention," but the wise man saith "put all thine eggs in one basket—and watch that basket."—Pudd'nhead Wilson's Calendar for February.

The tank steamers which carry petroleum from the United States to foreign countries are now utilized on the return voyage from certain ports for the carriage of molasses. As nearly one-half of the importation is made into rum, and the other half refined into sugar, the presence of a little oil is not of much moment.

In the protest entered by Charles Cooper & Co. and the Roessler & Hasslacher Chemical Co. against a decision of the collector of customs, New York, in assessing duty of ten cents per pound upon acetate of copper or verdigris, the claim was made for free entry under the regulation exempting from duty "verdigris, or subacetate of copper." The general appraiser ruled that the merchandise was acetate of copper, also commercially known as verdigris, and the only verdigris entitled to free admission is that which is subacetate of copper. The protest was overruled.

Following a well-established custom Bradstreet's has presented a table of failures occurring during 1893, which endeavors to show the primary causes of these unfortunate commercial episodes. The record is as follows:

FAILURES DUE TO	No.	No.	No.	No.
	1893	1892	1891	1894
Incompetence.....	2,546	1,316	2,021	2,405
Inexperience.....	940	532	522	614
Lack of capital.....	5,194	3,436	4,869	4,052
Unwise credits.....	726	410	509	572
Failures of others.....	446	196	259	295
Extravagance.....	128	148	251	232
Veget.....	481	311	383	390
Competition.....	191	189	198	246
Disaster.....	3,463	1,374	2,175	1,388
Speculation.....	181	197	341	674
Fraud.....	1,142	1,083	875	416
Totals.....	15,598	10,270	12,894	10,673

The Berry anti-trust law enacted by the Illinois legislature in July, 1893, contains a clause which exempts a debtor from payment for any article purchased of a firm or corporation which may, under that law, be considered as being in the nature of a trust. The Appellate Court of that state has decided that an honest debt cannot be repudiated under protection of such legislation. The fact that an article has been bought from an unlawful combination will not release the purchaser from liability for payment. The court held that if a corporation or firm "is abusing the privilege which it enjoys of doing business in the state, a remedy can probably be found to prevent future, if not punish, past abuse; but it is not an outlaw, having no right to sue for property it owns." The Supreme Court will probably be called upon to pass judgment upon these points.

Retail merchants are always on the lookout for attractive show-cards to call attention to their window displays, and as these must be varied constantly, no special expense must be incurred in their production. A novel and effective card, says *Painting and Decorating*, may be made on bevel-edged Bristol board. A pencil line should be drawn lightly about an inch and a half from the edge as a border, and a sheet of parchment tracing paper should be cut the exact size of the rectangle thus formed. Now, diagonally across the card, inside the border line, is painted with strong red or blue color a stripe perhaps an inch and a half wide. The tracing-paper is then glued to the card by a narrow line of glue just around the edge, and an ornamental border of some plastic relief material is applied and finished in gold or silver bronze. The lettering is then done upon the face of the tracing-paper in water colors, with a slight sprinkling of metallics. The effect is remarkably good, the parchment tracing-paper having a satin-like luster that is exceedingly attractive, while the stripe of color shows faintly but at the same time distinctly.

PEANUT OIL.

The importance of peanut oil as an European industry has become so great that the state department promises at an early date to publish reports from consular officers at Liverpool, Marseilles, Bordeaux, Bombay, Mozambique and other points upon the extent of the industry in their localities and the methods employed both in the cultivation of the nut and the manufacture of the oil. The climate of our southern states is peculiarly adapted for the growing of the nut, and it is hoped that extended knowledge as to the best methods of cultivation will increase its value as an agricultural product. The eminent economist, Mr. Edward Atkinson, predicts greater wealth-producing capabilities in the manufacture and use of peanut oil than can be expected of the cottonseed oil industry, and in this connection says: "The more I deal with these nitrogenous plants deriving their nitrogen from the atmosphere, the more it becomes apparent that the whole system of English political economy will be revolutionized, the Malthusian dogma disappear, the Ricardian theory of rent vanish and the so-called law of diminishing returns from land be reversed. In this view the peanut article becomes the beginning of a discussion of paramount importance."

FAIRCHILD BROS. & FOSTER.

If an illustration were wanted of the theory that success will come from a concentration of effort upon one particular object, or if an example were sought to prove the truth of the old saying regarding the doing of one thing and doing it well, the firm of Fairchild Bros. & Foster, of New York, would quickly suggest itself to members of the drug trade. The business methods which have characterized the growth of this firm are of a kind which naturally calls for the approval of the trade with which they have come in contact. There has always been a well-defined belief in the minds of the pharmaceutical profession that a business house that confined itself to the manufacture of one class of products would from necessity be compelled to do their best if they remained in the business, or in other words their continuation in business would depend upon the quality of their products. A record commencing with a small beginning, extending over a period of sixteen years, and which from the present point of view contains both a retrospect and a prospect of success, is that which belongs to the firm whose name appears at the head of this column.

The Fairchild Bros., Benjamin T. and Samuel W., are natives of Stratford, Conn., and received their early education in the schools of their native town. The elder, Benjamin T. Fairchild, decided, upon leaving school, to adopt pharmacy as a profession, and knowing the advantages which existed in Philadelphia for pharmaceutical training, he spent four years in that city under the preceptorship of O. S. Hubbard and Alfred B. Taylor, during which time he graduated from the Philadelphia College of Pharmacy. Upon leaving Philadelphia he entered the employ of Caswell, Hazard & Co., New York, and later that of Caswell & Massey, with whom he remained as chemist until 1878, when he embarked with his brother in an independent business. The younger brother, Samuel, also obtained his pharmaceutical training under the tutelage of Alfred B. Taylor and the Philadelphia College of Pharmacy, and his business education was obtained through a five years' course in the employ of Caswell, Hazard & Co. and McKesson & Robbins, of New York.

The firm of Fairchild Bros. was established in 1878, and this association of two brothers whose business and social lives had been spent in close relationship and whose qualifications embraced a thorough knowledge, both of the scientific and commercial aspects of pharmacy, did much to contribute to the success of the new firm. After three years of steady progress, Macomb G. Foster, who had been three years with the firm of McKesson & Robbins, was admitted to the firm, which then became known as Fairchild Bros. & Foster. This change in the firm greatly increased its capital and gave greater scope for the business capacity of its members, and in 1881 the manufacture and introduction of pharmaceutical specialties had assumed such proportions that the firm established itself at 82-84 Fulton st. and began making a specialty of the "digestive ferments." The success of this class of products is well known to all connected with the medical and pharmaceutical professions, and the favorable relation which the name "Fairchild" bears to these products is largely due to the personal sci-

titic labors of the members of the firm, and to the sound business principles which were employed in their introduction. In building up a successful business in manufacturing pharmacy this firm shows an example which is well worthy the emulation of those whose success is yet to come along similar lines. Such a business needs a strong and loyal hand to direct its scientific interests, and in this instance the place is ably filled by Benjamin T. Fairchild. An enterpriser of this character needs an astute business manager, one who is well acquainted with the trade, and can successfully plan and carefully guide its business policy. This position is admirably filled by Samuel W. Fairchild. The successful firm also needs one to superintend the details of its manufacturing operations, and in such a position Macomb G. Foster contributes much to the success of the firm.

NEW PROCESS FOR MAKING CITRIC ACID.

Dr. Carl Wehmer, a Hanoverian botanist, is said to have recently discovered that sugar solutions exposed to the action of certain microscopic fungi, the spores of which float in the atmosphere, become transformed into citric acid precisely identical with that extracted from the lemon, says a recent United States consular report from Rome.

The first experiments made to prepare citric acid artificially in this way are said to have given excellent results, eleven kilograms of sugar producing six kilograms of crystallized citric acid.

The new process has already been patented in several countries, including Italy; and at the factory of Thann the distinguished chemist, Scheuren-Kestner, is now carrying on experiments with a view to applying the process on a large scale. Everything tends to show that this new process will assume great development, and will make it possible to supply the trade with citric acid at a much lower cost than that actually ruling, and will in all probability supersede, in a few years, the present method of producing lemon juice and citrate of lime.

In the year 1887, from Messina alone, 4,438 pipes of 130 gallons of lemon juice (used to fix colors in calico-printing), and valued at \$625,834, were exported. A large quantity of crystallized citric acid was also exported. The success of this new process will prevent new investments being made in the industry of lemon growing, which must receive a great blow from this new method of preparing citric acid, and thereby sustain heavy losses.

Unmerchandise lemons are turned to great account, in Sicily particularly, by extracting the essence from the peel and by converting the juice into concentrated lemon juice. Should this resource now be taken from the Sicilian lemon-grower, he will indeed sustain a heavy loss.

While Florida and California lemon-growers will not be affected by this new industry, should it ever prove all that is claimed for it, because their industry is still in its infancy, the question appears of sufficient interest to arrest attention.

The output of the manufacturers of druggists' and stationers' rubber goods in the United States in 1893 amounted to over \$1,500,000.

LITIGATION IN THE U. S. CAPSULE CO.

There is some dissatisfaction among the stock holders of this new capsule company, and the courts have been appealed to for relief. As stated in our issue of January 1, the United States Capsule Co., a New Jersey corporation, was recently organized for the purpose of consolidating the Merz Capsule Co., the Warren Capsule Co. and the Michigan Capsule Co., of Detroit, and National Capsule Co., of Indianapolis.

"The reason for this consolidation," state the company's attorneys, "was that the several companies above mentioned possessed different patents and operated under different processes, each of which had its especial merits and points of advantage. It was desired to unite all of the advantages which were possessed by the various processes belonging to the respective organizations in order to produce a better capsule, and one which would more fully meet the requirements of the trade. The combined capacity of the four plants will be greater than the aggregate capacity of the plants operated separately and the cost of production more economical. After the United States Capsule Co. was organized each of the other companies conveyed all of its plant and property to the new company and received stock in payment therefor. The intention of the new company was that the old plants should continue to be operated under substantially the same management as heretofore. After the consolidation was completed and all the property had been transferred, the Merz Capsule Co. refused to deliver the property which it had agreed to convey, and for which it had executed and recorded a bill of sale, and has filed a bill to set aside the conveyance and the agreements under which the consolidation was effected upon the ground that the agreement was void, as being in restraint of trade. The litigation only affects the Merz plant. The other three plants are being operated to their fullest capacity, and are now doing a good business."

The Merz Capsule Co. states: "As a Michigan corporation, we are not allowed, under the laws of this state, to hold stock in another corporation, and when advised of this fact we requested the United States Capsule Co. to allow us to withdraw from our agreement. This request was not only refused, but on January 22 representatives of the United States Co. without any lawful papers, attempted to take possession of our plant and forcibly removed part of our machinery, ostensibly spirited away for the purpose of preventing us filling orders and to force us into the combination. We have taken the matter into the courts, and shall fight it to the end. We have already arranged to replace the machinery which was removed, and are able to take as good care of our orders as the circumstances permit. The litigation in progress affects only the hard empty capsule part of our business, and does not concern our soft goods or filled capsules."

Walding, Kinnan & Marvin, wholesale druggists, Toledo, O., have been succeeded by the Walding, Kinnan & Marvin Co.

It is estimated that the 300,000 commercial travelers of the United States sold, during the last year, 600,000,000 tons of goods and paid \$175,000,000 in railroad fare.

PACKING GOODS FOR EXPORT.

The reports of United States consuls have for many years past given considerable space to complaints as to the manner in which goods are packed in this country for export, and the apparent indifference on the part of American manufacturers to the needs and desires of foreign consumers. These complaints have caused considerable improvement to be made, but not nearly as much as the importance of the question justifies. With a view to bringing the subject into prominence, the state department recently directed the entire consular service to interview leading merchants in their respective districts and furnish information upon the following points regarding the packing of goods, viz.: (1) The means by which goods from the United States reach foreign countries, and the handling and usage to which they are subjected en route. (2) The landing of goods at seaports—whether at wharves or by lighters. (3) Warehouse facilities. (4) Shipment to interior points, and the size and weight of packages best suited to the different methods of transportation. (5) The best material for outside covering—bale, box, barrel or bag—and the necessity for waterproof coverings. (6) The customs duties charged upon containers, etc.

The replies to such inquiries have been collected and published by the government in the January number of the consular reports (Vol. 44, No. 160), which forms a valuable reference work for the counting room of everyone interested in the extension of the foreign trade of this country. It is quite apparent, from the tenor of a majority of the reports, that an export trade cannot be built up unless better attention be given to seemingly insignificant details of packing, consigning and invoicing, and the opportunity for building up such trade was never more propitious than at the present, when expected legislation seems to point toward free raw materials, with an expected effect of increased production.

Before noticing some of the suggestions contained in these reports it may be well to refer to the recent report of the bureau of statistics, which furnishes figures bearing upon the foreign trade of this country for the fiscal year ending June 30, 1893. Under the head of exports, classified as "Chemicals, drugs, dyes and medicines," the following values are given: Acids, \$91,284; ashes, pot and pearl, \$31,775; Ayes and dyestuffs, \$679,373; sinseing, \$792,928; medicines, patent and proprietary, \$1,866,061; roots, herbs and barks, \$194,715; miscellaneous, \$3,097,562. In addition to these there were exported glucose, \$2,204,216; glue, \$74,722; hops, \$2,686,867; rosin, \$3,333,367; tar, \$40,244; spirits turpentine, \$3,892,436; oil cake, \$9,688,733; cottonseed oil, \$3,927,556; linseed oil, \$54,356; oil peppermint, \$267,422; other essential oils, \$316,021; perfumery and cosmetics, \$345,041; paraffin, \$4,515,534; soaps, toilet and fancy, \$103,849. Comparative figures under the head of "chemicals, drugs, etc.," are as follows: Total exports for 1893, \$6,754,968; for 1892, \$5,673,755; for 1891, \$6,546,354. These figures are quite satisfactory as far as they go, the only trouble with them is that they are not large enough for a nation which is noted for hoisting of large things.

Quite a large proportion of our consuls report that American packing is quite satisfactory in their respective localities,

but it is noted that such reports are usually from points where a good trade has been established, which makes the question of good packing all the more significant. There are many things to be taken into consideration by our exporters which do not ordinarily enter into the packing problem at home. The effects of climate, sea voyages, the requirements of transportation, which, in many cases, is either man or mule, and methods of freight handling, which, in some countries, would make the most expert American freight and baggage-smasher turn pale with envy, must be considered, and all these points are referred to at length in these reports.

The consul at Guatemala says: "When American exporters learn how to pack and consign goods properly to the Spanish-American countries, as do European houses, which have made a special study of these matters, then, and not until then, will they be able to command their share of the Latin-American trade; but the merchants here believe that this will not be the case until the United States have to depend upon their export trade, as does Europe. Attention may be called to another most cogent reason for the failure of American manufacturers and exporters to secure a larger proportion of this trade. The credits given in Europe are for much longer terms than those allowed in the United States. The wholesale merchants of this capital who supply the interior trade of the country are compelled to give long credits; so they, in turn, have to seek long credits in Europe. Credit here would seem to be well deserved, as failures in business are all but unknown. The present financial crisis, which has wrought so many failures throughout the world, has had no apparent effect here. The commercial agencies at home might greatly enlarge their usefulness and further the interests of American trade by sending an agent here."

The consul at Paris says: "If American exporters fully appreciated the importance of properly packing all goods and merchandise shipped from the United States to European countries, the loss arising from breakage and the damage done by exposure to the elements would not only be greatly reduced, but importers on this side would have their confidence largely increased. The result would be a considerable increase in the European demand for the products of the United States."

The consul at Chemnitz, Germany, says: "Goods are shipped to the interior in covered freight cars, the cost depending upon whether they go 'fast,' 'midding fast,' or 'slow.' To nothing else does the German pay so much attention as to the packing of his goods. He acts upon the principle that a poor article in an attractive box is much more easy to sell than a good article in an indifferent box. What at first would seem waste is soon seen to be excellent business foresight. A few weeks ago I read of a plan, projected by German merchants, to experiment in the matter by packing goods of all kinds in different ways recognized as good, to send them abroad on a sort of trip around the world and test the merits of the different methods of packing. A characteristic of the German agent abroad is to find out just how his customers want their goods packed, and to

urge that, if possible, they be so packed. There is, they think, no more important factor in trade."

Our consul at Mozambique writes that "American merchants who succeed in doing business with firms in this province should pay particular attention to the packing of goods. It is the practice here for the buyer to specify exactly how he wants his goods packed, and such specifications should be carried out to the letter. The American trade is very small here at present. This is not because there is no opening for American goods, but because our merchants have not tried this market. Business people on this coast know a good thing when they see it, and our merchants and manufacturers have much to offer which they can handle to good advantage."

The consul at Hogo, Japan, suggests "drugs, chemicals and liquids could be advantageously shipped in small steel drums, the latter being emptied and returned filled with fish and other oils."

Katz Bros., through the consul at Singapore, say: "The United States should send out more travelers in order that American goods may become better known."

A prominent merchant of Hamilton, Bermuda, in commenting upon American catalogues, says: "I find that American catalogues are much better illustrated than the English, which, in many instances, give the American goods the preference, although the English goods may often be cheaper."

The consul at Frankfort, Germany, quite forcibly presents complaints from a German standpoint under two heads as follows: "First, the apparent indifference of American merchants to orders from abroad, their neglect and delay in answering inquiries or filling foreign orders, and, second, the blunt and peremptory manner in which they turn over goods ordered from abroad to a shipping agent at the nearest seaport and insist upon payment the moment the merchandise is delivered on board cars or at tide water, in accordance with American usage in the home trade. This obliges the European purchaser who orders American goods from the manufacturer to pay for them before they arrive—to buy a thing which he has not seen. This is a rank departure from European methods. And the objection to it is not fully answered when it is urged that American importers pay readily for European goods when delivered at the railway station nearest the place of manufacture. 'That is your American way of doing business,' say the complainants, 'but it is not our way,' and in times like these, when competition is so fierce in all lines of trade, the purchaser, as well as the seller, should have something to say about terms and conditions of payment."

As these criticisms are made by our own representatives in foreign countries, they may be accepted without that feeling of resentment, which would attach to the same comment from strangers or competitors. Foreigners undoubtedly want our goods, but they want better packing and desire to have a voice in the settlement of terms.

Dr. Fancher Family Medicine Co., Racine, Wis., has been incorporated to manufacture a general line of family remedies.

HINTS UPON ADVERTISING.

The impromptu speaker who, upon short notice, rises and is able to talk entertainingly and instructively upon any topic which may be suggested to him, is such a rarity that his existence is somewhat in doubt. It is usually found upon investigation that the men who, like Spartacus, "come not here to talk," and are very much surprised when called upon to speak, are really delivering words which, to their own ears, are decidedly familiar, and making gestures of which their mirrors, had they the power, might show us the duplicates. This view of things, which are apparently done upon the spur of the moment, but are in reality the culmination of laborious effort, will serve to illustrate some phases in the business of advertising. There are two kinds of advertising, the kind that pays and the kind that does not pay, and it is usually an easy matter to identify these two kinds by their respective earmarks. Like everything else in the world bearing the impress of either success or failure, the one is distinguished by hard work and study in its preparation, and the other is like the effort of the truly impromptu speaker, which makes people "fidgety" to listen to. The lawyer who would attempt to make a speech to a jury without first studying both the jury and his case would soon be without clients. The preacher who would try to preach without studying his text would soon be without a congregation. The actor who appears upon the stage without due regard for his make-up and with lines half learned, is usually treated to stale provisions. The commercial traveler who does not study the art of good address and is not scrupulous as to his personal appearance, soon finds himself without a position. In spite of all these analogous cases there are thousands of business men who are apparently possessed with the idea that an appeal in the shape of an advertisement, which is presented to, perhaps, 100,000 people, is a very simple matter that can be written up in a few minutes, and they have a somewhat vague hope that this hurried, off-hand work, done upon the spur of the moment, will so mightily please this 100,000 people that at least 25,000 of them will be led to purchase of the appellant on the strength of his appeal. Has the business man any right to expect returns from such an indifferent amount of labor? He usually looks at the sum of money expended for advertising, and thinks there ought to be something of an intrinsic nature in it to bring returns, forgetting that he does not apply the same rule to the capital he has invested in his stock of goods. He is like the man who goes fishing and neglects to take his bait with him; he returns in bad humor, blaming the man from whom he hires his boat, and anatomizes the fish for not biting an empty hook.

The moral to be derived from these illustrations is quite obvious. Exceptions prove the rule that advertising pays. At the same time analogy proves that only careful, well-considered and well-directed efforts pay. This rule is not only applicable to the large advertiser, who apparently does his work upon a systematic basis, but it applies equally to the man who spends a dollar for a ten-line reading notice and hopes at least to get his dollar back. The average retail druggist is rarely in a position where he can af-

ford to throw money away. He is learning that advertising is a necessity if he desires to keep up with the procession, and it is, therefore, necessary that he spend his money to the best advantage. As before stated, this can only be done by exercising the greatest care and giving the matter some actual hard study. The buying of quinine at a certain price per

paints and oils and has been telling the public for years that he sells "cheaper" than anyone else upon earth may profitably turn his attention to something new. Some catch phrases to attract attention will do very well as a starter. He might use an ad like Sample 1.

Or he possibly knows that many people have an idea that they can't afford to paint a house because it costs too much, and they dismiss the matter without investigating what it actually does cost. Such people might look at the statement in Sample 2.

And we venture to assert that every house-owner whose building shows a weatherbeaten appearance will take out his pencil and see how many square feet of surface his house measures. The statement in the "ad." interests him, and no man can be brought to the point of buying until he becomes interested.

The country druggist can undoubtedly do something in the way of furnishing fungicides, insecticides, etc., for the farmer and gardener next season, and it might be well to call the attention of the public to the readiness of the druggist to supply such demand. Sample 3 is given to indicate a possible field for the efforts of the country druggist as the "common chemist of the common people." It is not inferred that the margin of profit can be very large upon such commodities, but a good, brisk trade upon a small margin is worthy of cultivation. By noting these somewhat crude suggestions the average druggist can look around his establishment and find enough material for a line of advertising which can be made to bring in results all next summer. When the local board of health gets its annual scare he can advertise disinfectants. Warm weather should call forth mention of soda fountains and cold drinks, and in season and out of season he has the remedies which he makes himself as a means of keeping his name alive. Give the people something inter-

esting about specialties and side lines, and they will remember the druggist who does this when they want staple articles. But the thinking on this subject should be done now.

THE ISSUE OF

Government Bonds

was undoubtedly a beneficial measure for the country, but it does not compare with the benefits conferred by the

Agricultural Dept.

through its investigation of the best methods of destroying insects, fungous growths, etc.

All the different mixtures recommended by the Department, such as

Bordeaux,	} —ALSO—	
Ammoniacal,		
Eau Celeste,		Paris Green,
Copper Soda,		London Purple
Lime Sulphur,		Etcs., Etcs.,
Etcs., Etcs.		

CAN BE PROCURED OF

JOHN SMITH, Druggist,

110 Smythe Ave. SMITHTOWN.

Sample 3.

PASTOR KNEIP'S REMEDIES.—Nat. Dr. gives the following information in reply to a query:

The list calls for Pastor Kneip's Husten-thee, Wuehluherthee, Malefiz-oel, Blut-reinigung-thee and Magentrost. They are all quack remedies of considerable reputation in Germany. The following was published two or three years ago, and was taken from the official statement concerning the nature of the preparations, made either by the imperial government or on the authority of some of the German states, we forget which:

Husten-thee.—Colts-foot leaves, 20 parts; pulmonaria officinalis (spotted comfrey), 20 parts; mullein leaves, 10 parts; foenugreek seed, 10 parts; mix and powder.

Wuehluher-thee.—No. 2.—Aloes, 19 parts; fennel, 20 parts; juniper berries, 20 parts; foenugreek seed, 20 parts; dwarf alder root, 30 parts; mix and powder.

Maelfiz-oel.—Croton oil, 1 part; oil of sweet almonds, 6 parts. Mix.

Blut-reinigung-thee.—Elder flowers, 10 parts; elder leaves, 10 parts; dwarf alder root (radix ebull), 10 parts; sandal-wood, 10 parts; buckthorn bark, 10 parts; mistle-toe, 10 parts; sloe blossoms, 5 parts; strawberry leaves, 5 parts; nettle leaves, 5 parts; juniper tops, 2½ parts.

Magentrost.—St. John's wort (hypericum leaves and flowers), 3 parts; milfoil, 1 part; juniper berries, 1 part; dog-rose, 1 part; gentian root, 1 part; vermouth (absythia artem), ½ part; equisetum, ½ part; eye bright, ½ part; little centaury, ½ part; peppermint oil, 1 part; alcohol (90 per cent) 6½ parts. Mix.

THE HOUSE OF THE SEVEN GABLES

was all right architecturally, but its forbidding appearance was due to a lack of

PAINT.

There are lots of houses in Smithtown in the same condition. Their owners should call on

JOHN SMITH, 110 Smythe Ave.

and let him show them figures on paints and oils.

Sample 1.

and selling it at a certain price per grain is a transaction requiring but little skill, and the returns are apparent upon their face, but in the matter of advertising, where the returns are indirect, the demand for skill at all stages of the transaction is quite apparent.

Perhaps one of the best preliminary steps for the advertiser is to place himself in the public's shoes and carefully note the effect of different styles of advertising upon himself. He should observe the style of the successful advertiser, not necessarily for imitation, but more for style and tone, and endeavor to improve upon it. As a rule, the best advertising for the retail druggist is that of specialties or side lines. The public is well acquainted with the general stock of a drug store, and expects "pure" drugs and the "careful compounding" of prescriptions. The payment for space in the newspapers to state these facts is simply spending money for an object, that of keeping the advertiser's name before the public, which can be attained in other ways. An advertisement calling attention to a fine lot of sponges, signed by John Jones, druggist, not only calls attention to sponges, but advertises the general stock through the word "druggist." Another point which should receive due attention is the seasonableness of the goods advertised.

The advertising which should now appear in connection with goods now in demand ought to have been thought out months ago, and it is not too early to begin experimenting, cutting and trying styles of advertising to catch the public eye next spring and summer. To begin now is to allow plenty of time for study and revision. A complete list of spring and summer goods should be compiled, and the man who is bent upon effective advertising should begin to think up his speech and speculate upon its appearance in cold type. The druggist who handles

Sixty-Four Dollars and Fifty-Nine Cents

is what it will cost to

PAINT

a house whose external surface measures 2,500 square feet. Of course a larger

HOUSE

will take more paint and a smaller one less, but the price ranges accordingly. In order to obtain this remarkable result you will have to buy your paint of

JOHN SMITH,

110 Smythe Ave. SMITHTOWN.

Sample 2.

TRADE NOTES.

EASTER DYES.

These may be obtained of the following firms, all of whom have advertisements in this issue:

O. A. OHL, Tiffin, Ohio.
PAAS DYE CO., Newark, N. J.
J. J. FLECK, Tiffin, O.

Get your order in early for Pennyroyal Wafers. See page 49.

W. P. Fuller, San Francisco, manufacturer of paints and varnishes, succeeds Whittier, Fuller & Co.

The White Rock Mineral Spring Co., of Waukegan, Wis., has adopted the picture of "Psyche at Nature's Mirror" for a trade mark of its mineral water, "Ozonate Lithia."

C. H. Mason, M. D., of Chatham, N. Y., offers 40 per cent to druggists who will send customers to his sanitarium for treatment for cancer, or will allow the same amount on his remedy for treatment. See his advertisement in this issue.

W. H. Bowdler & Co., Boston, report crude Beeswax in good demand and firm at 27 to 30 cents. W. H. B. refined 70 cents, white 40 cents. Carnauba very scarce, No. 1, 20 cents; No. 2, 18 cents; No. 3, 16 cents. Ozokerite steady at former prices.

The retail druggist who has not read the advertisement of the Eureka Chemical Co., and their offer to the retailer, whereby their extraordinarily successful Pennyroyal Wafers can be easily handled, has failed to avail himself of a chance to make a good profit for himself. Turn to page 46—"Lost three sales."

Someone has been analyzing the soda water dispensed in India, and 9,000,000 microbes were found in one pint of the beverage supplied by one dealer. There is consolation, however, in the statement that most of them are harmless and that the gas has a tendency to poison the harmful bacteria.

The Standard Thermometer Co., of Foulbody, Mass., are interested in the kind of thermometers which are handled by the drug trade. They claim that their goods are the best upon the market today, and they invite the trade to investigate their claims. They will be glad to send prices and catalogues to those who want them.

Pure Rock Candy made directly from the crystals is what the druggist is after when he desires something of undoubted merit. The D. B. Scully Syrup Co., 49-51 River street, Chicago, make this kind of syrup, and they promise to furnish all inquirers something interesting in the way of prices on rock candy and rock candy syrup.

RIVERMOUTH SACHETTE POWDERS.

Preston, of New Hampshire, is getting out a line of Sachette Powders with the above trade name. Portsmouth is a delightful, old city near the sea, at the mouth of the Piscataqua River, and Rivermouth is a name suggested by one of the old inhabitants. If you want to know about the Rivermouth Sachettes, drop a line to Andrew P. Preston, Portsmouth, N. H., and ask about them.

George Lueders & Co. have lately got out a souvenir of the World's Fair consisting of half-tone pictures of various foreign exhibits, which were represented by this firm. They are as follows: Heine & Co., Leipzig; Lautier Fils, Grasse, France; Sasserno, Piccon & Manzier, Bari, Italy, and Keulbach-Lueders, Karlovo, Bulgaria.

When ordering corks the proper thing to do is to specify a brand which will give the best satisfaction for the money expended. This information is not intended for those who have used goods made by the Williamsburg Cork Co., of Brooklyn, N. Y., as it is superfluous, but for those who haven't the advice is quite pertinent to specify "Williamsburg."

Dead Certain Corn Cure retails for 25 cents and the manufacturers, T. E. Fraser & Co., Fifty-fourth street and Second avenue, New York, put it up in W., T. & Co.'s patent corn cure bottle with retailer's name and address thereon. They make a special offer on these goods and will send three dozen for \$3, when cash accompanies the order.

The Tyer Rubber Co., of Andover, Mass., manufacture such an extensive line of rubber goods that every druggist will find their price lists and catalogue a decided help both in ordering and in ascertaining what is on the market. Satisfaction is very generally secured by specifying "Tyrian" upon all orders for such goods.

Eight gallons of superior bay rum from one pound of concentrated Extract of Bay Laurel costing \$2 are what can be realized by taking advantage of the offer of Henry Thayer & Co., Cambridgeport, Mass. It may be ordered direct or from anyone on the list of jobbers, which is shown in connection with their advertisement in this issue.

A DENIAL.

To the Pharmaceutical Era.—We notice in a recent issue of the Pharmaceutical Era that our name has been used in connection with the so-called United States Capsule Company as being one of the parties to that combination. We beg to state herewith that we are not connected with the above named parties.

Yours truly,
THE MERZ CAPSULE CO.
Detroit, February 7, 1894.

AN IMPOSTOR.

The Wells & Richardson Co., of Burlington, Vt., have been considerably annoyed through the operations of parties by the name of Dice and Manning, who have been collecting money from druggists in payment for signs advertising Faine's Celery Compound through the states of Indiana and Ohio. This firm state that they have no one in their employ who does fence sign work, and parties representing themselves as acting in such capacity are gross impostors.

The man Dice is described as follows: A well-built man, about five feet ten, dark hair turning gray, dark grayish mustache, between thirty and forty years of age, heavy, thick, coarse voice, coarse features, a very smooth talker, and a rapid and perfect sign writer. He told one druggist that his home was in Alabama and that he was working southward from Indiana and expected to be back north in the summer.

The illustrated catalogue of Mead & Co., Detroit, Mich., can be procured for the asking, and should be in the hands of every one interested in drug milling. The mills of this firm are used by many of the leading drug, glue, gelatine and sugar manufacturers with perfect satisfaction, and the firm offers to grind samples of any material sent, which they will return with statement of the time consumed in grinding.

"Klinol," the new antipyretic and analgesic, is now obtainable in both powder and tablet form in ounce vials. It is believed that this method of putting it on the market will greatly increase the demand for it, and will be highly appreciated by the medical profession. Druggists who are not acquainted with this preparation will be supplied with samples upon application. Address the Klinol Co., Cleveland, O.

THE FINEST IN DETROIT.

A. A. Brown & Co. are going to put in one of the finest drug stores in the city of Detroit. The fixtures are to be made of solid mahogany, handsomely carved. All of the latest improvements and conveniences which are of great assistance to the druggist will be embodied in the construction of these fixtures. This is one more of the many fine drug stores that have been fitted by R. X. McArthur, manager of the Excelsior Show Case & Cabinet Works, 56 Fifth avenue, Chicago, and it will pay any druggist who desires anything in the way of fixtures to correspond with him before purchasing.

THE PLACE TO DINE IN NEW YORK CITY.

Business men visiting New York city are beginning to find out that one of the costliest places to get a good dinner, with everything of the best, is the old restaurant, formerly Heckman's, now called the "Century," at No. 122 William street, in the center of the drug district, which has changed hands and is now run in first-class style by one of the best caterers in the city. There has been a restaurant in this building (the oldest in the city) as far back as the memory of the oldest inhabitant can run. Many of the leading business men, who are particular regarding their meals, may be seen regularly at this old hostelry.

A WONDERFUL SALE.

Mr. G. D. Flinn, prominent horseman at Union Springs, N. Y., writes as follows: "I have used three or four bottles of Quinn's Ointment and can say it is the greatest remedy I have ever seen. I had a mare that had a bunch on her hind leg that had not been blistered for three or four years, and with three applications of Quinn's Ointment I have it perfectly smooth." This is the general experience of the leading breeders and horsemen throughout the United States. Quinn's Ointment is having a wonderful sale. For curbs, splints, spavins, windpuffs and all bunches it has no equal. It will pay all druggists to carry it in stock, and if you desire advertising or will send the names of ten or twelve of your customers, who are in the horse breeding line, to Messrs. W. B. Eddy & Co., Whitehall, N. Y., they will forward without charge, trial packages.

Attention is directed to the new advertisement in this issue of the United States Capsule Co., of Detroit, Mich. They claim for their goods those qualities of uniformity in size and careful cut which should distinguish the perfect capsule, and they offer to send samples to support this claim. See their prices on another page.

The Star and Crescent Mills, of Philadelphia, have met with so much encouragement from the drug trade in the introduction of their Turkish towels, bathrobes, etc., to the public through the retail druggist that they are making arrangements to place their goods with one jobber in the different large cities, and are getting out a new illustrated catalogue which will soon be ready for distribution.

The attention of all interested in means of preventing the refilling of bottles is directed to the advertisement of the Hero Fruit Jar Co., of Philadelphia, in this issue. They manufacture a stopper which is neat, simple, powerful and cheap, and besides really fills the purpose for which it was intended. It will cost nothing to examine it, as they will send samples and prices upon application.

The Germa-Vici Company, of Syracuse, N. Y., manufacturers of Germa-Vici, the disease germ destroyer, have discontinued the sale of the remedy in jugs retailing for \$2, and will hereafter put it up in one-half gallon jugs only, retailing for \$1. They supply all agents with a liberal amount of pamphlets and counter advertising, and will gladly send terms to druggists who will write for the same.

What Ruskin said may not have had at the time a direct bearing upon the paint which is manufactured by John Lucas & Co., but this firm's products are of a character which show a direct connection with the ideas of this greatest of art critics. This firm performs a great service in aiding your customers in the selection of proper colors, and they also aid you to sell these colors. Send for color cards and dealers' discount.

The New York Quinine and Chemical Works are the largest manufacturers of aloin, cocaine and acetanilid in the United States, and the manufacture of quinine, morphine and their salts and santonin is confined to two firms, one of which is the New York Quinine and Chemical Works. The products of this latter firm are highly appreciated by the medical profession, and they ask the drug trade to specify "N. Y. Q." when ordering.

The College of Pharmacy of the city of New York needs neither words of introduction nor praise to the pharmaceutical profession of the United States. Its able corps of instructors and unsurpassed equipment render it a favorite institution for the student who desires to complete his pharmaceutical education. In addition to these advantages its geographical situation in the metropolis of the country gives it a prestige which is peculiarly its own. Every one desires at some period of life to visit our greatest city, and the student who has a desire to observe the methods and manners which characterize one of the greatest markets of the world and to come in contact with its cosmopolitan life will find much that is attractive in the prospect of gaining his education at this famous school.

Spruce Gum as a chewing gum has always been a favorite and probably always will be. This accounts for the success which has attended the sale of the Yankee brand of Pure Spruce Gum, manufactured by Curtis & Sons, Portland, Me. The drug trade is assured that if they will keep this brand people will buy it. Write for price list and mention the Era.

E. N. Rowell Co., of Batavia, N. Y., are quoting some prices on pill boxes which ought to place their goods in every drug store in the United States. In fact, no druggist can afford to allow the opportunity to pass by of purchasing bronze, lithograph labeled pill boxes in ten gross lots at seventy cents per gross. The firm offer to send samples, so that the quality of their goods may be judged. Write them and mention the Era.

Wherever Parmelee's Pile Suppositories have been introduced there can be found abundance of testimonials from physicians, druggists and users in favor of their effectiveness. This latter point is one of great importance to the druggist, as he always has a direct demand for this class of remedies. Parmelee's Suppositories cost \$3.50 per dozen, express paid, and retail for fifty cents. Plenty of advertising is sent with each order.

The illustration of the soda fountain in the store under Abbey's new theater, Broadway and Thirty-eighth street, New York city, shown in the advertisement of the Low Art Tile Co., gives some idea of the artistic possibilities which belong to tile work in its adaptation to the most attractive feature which a druggist may place in his store. Not only are the finest effects in mural decoration capable of being produced, but the reproduction of some of the best efforts of the greatest sculptors is made possible in alto-relievo and bas-relief by the employment of this material. A man may have, if he wishes, an art gallery and the best of that truly esthetic beverage, soda water, at the same time, and his patrons will appreciate both. It should be noted that this company guarantees that colder soda, with less ice, can be drawn from tile fountains than from those made of other material and that they ask every intending purchaser to write to them at 952 Broadway, Chelsea, Mass., before buying.

OUR DEALERS TEST IT

Yellow Pine Extract Co., Allegheny, Pa.: Gentlemen—In regard to "Yellow Pine Compound" and my trial of the remedy, I have taken about two-thirds of a bottle, and feel a great deal better, and hope to say by the time I have finished the bottle that I am entirely well. I think a very nice trade can be worked up here. Please send another quarter dozen, and also some advertising matter. Will send you, in a few days, a list of sufferers from that plague of diseases, rheumatism. Yours truly,

GEORGE B. ROGERS,

Manager Smith's Drug Store, 402 Michigan street, Buffalo, N. Y.

Yellow Pine Extract Co., Allegheny, Pa., will send full information as to prices, and plenty of advertising matter, upon application. Will also send descriptive letter, with dealer's name attached, to any persons whose names are sent us. Send for blanks for this purpose.

Druggists and jobbers are informed that the Morley Drug Co., 57-59 Franklin street, Chicago, now carry a full line of Gilpin, Langdon & Co.'s powders for percolation. Western orders are filled from this depot, thus effecting a large saving both in time and freight. If there are any druggists not familiar with the superior quality of these powders they are invited to drop a line for full particulars to Gilpin, Langdon & Co., Baltimore, Md.

The specialty of the Standard Flint Glass Works, of Philadelphia, is homeopathic vials, and they are of the opinion that there is no firm in the country that can turn out better goods. As druggists have to be continually ordering goods of this kind, as well as syringes, test tubes, inhalers, pipettes, glass tubing, etc., the prices of the Standard will be found useful in making up orders. They can be had for the asking.

The tilting syrup jars for soda fountains which were introduced but a short time ago by Charles Lippincott & Co. are such decided conveniences to the dispenser that they have met with high favor on the part of all who have used them. All druggists who are unacquainted with this new idea should investigate it, and at the same time look into the merits of Lippincott's Improved Interior Ice Box Cover and Acme Coolers, which are claimed to save 40 per cent of ice. A mild winter means high-priced ice, and the man with foresight is studying upon such problems now.

PIPERAZINE.

The trade will probably remember the numerous circulars issued by Chemische Fabrik Auf Actien, vormals E. Schering, and Lehn & Pank, concerning our alleged violation of the rights of these parties, to the exclusive use of the alleged trade mark, "Piperazine." Suit was commenced against us in or about February, 1893, under this trade mark, to which we filed our answer in April, 1893, when the same was due, and in December last, the complaint was dismissed, upon our application, by his honor, Judge Lacombe. We had, during this period, been pressing the complainant to proceed with the case, because we had absolute proof that their case was worthless, but, finally, falling in any way to bring them to trial, we obtained the order of dismissal, as above stated. By the dismissal of this suit the attacks upon us are practically admitted to be unjustifiable. We have just been informed by our manufacturers in Germany that the litigation brought against them there under the Piperazine patent by Messrs. Schering has been unsuccessful, and it has been declared by the court there that The Farbenfabriken, vormals Friedr. Bayer & Co., of Elberfeld, are not liable under Schering's patent. It is naturally to be expected that the same result would be reached by the courts in the United States should any case arise here. It is our intention, in the future, as in the past, to act only within our legal rights, and infringe no valid patents or trade marks; but, at the same time, when such unwarranted attacks are made upon us, as has been the case in this Piperazine matter, we have deemed it our duty to keep the trade informed concerning the situation, and to protect their interests, in every proper way, against unwarranted interference.

W. H. SCHIEFFELIN & CO.
New York, January, 1894.

The great increase in mail orders for Non-Secrets, Fluid Extracts and Pharmaceuticals manufactured by Irwin, Kirkland & Co., Decatur, Ill., is positive evidence that their products are of the best quality, possess superior merit and are sold at bottom prices. Their fluid extracts are made from select drugs by the most approved methods and are guaranteed of reliable medicinal properties. Special quotations sent upon application.

The Diamond and Unique brands of toilet paper are unlike any others, and have a degree of excellence in quality which makes a trial customer become a permanent one. These brands, as well as several other good ones, are manufactured by the A. P. W. Paper Co., Albany, N. Y., and their latest catalogue, besides describing their goods, tells the retailer how he can sell toilet paper for what it formerly cost him.

Iodoform, the new substitute for Iodoform, is a beautiful yellow crystalline powder, resembling somewhat Iodoform in appearance, but is completely odorless. It is practically insoluble in ether and oils and only slightly soluble in water and alcohol, but forms emulsions with oily liquids and collodion. It is well adapted as a dusting powder for the surface of wounds, etc. Full particulars regarding the chemical character of this new preparation, and clinical reports upon its application will be furnished to all interested who will address Schulze-Berge & Koehl, 79 Murray street, New York, who are sole agents for the United States.

If anything is wanted in the way of metal goods, such as bottle stoppers, collapsible tubes, etc., remember that A. H. Witz, 913-917 Cherry street, Philadelphia, manufactures a full line, and will send prices and samples upon application. His goods are handled generally by wholesalers, and orders for them may be included with those for general merchandise.

R. Boericke & Co., of 495-503 Wells street, Chicago, Ill., invite the drug trade to send for their descriptive catalogue, and become posted upon the large line of goods which they manufacture that would be profitable for the druggist to handle. People go to druggists for their medicines, and will do the same for crutches, invalid chairs, etc., if they are invited to do so.

The advertising possibilities within reach of the druggist who has a well-selected outfit of the rubber type manufactured by W. W. Dietz, of Chicago, are so great that the offer in this issue of the Era should receive careful attention. The uses to which an outfit of this sort can be put are beyond enumeration, in fact the possessor of one can daily find new uses for it. Write for catalogue and mention the Era.

The price list for 1894 of Whittall, Tatum & Co., Philadelphia, has been received. An inspection of its contents shows a very complete line of goods covering nearly every demand which druggists are in the habit of making in the way of glassware. The catalogue also shows that the firm manufactures and handles a very comprehensive line of druggists' sundries, and the trade will find it a very handy reference book when ordering goods.

The spring offer of the Celery Medicine Co., Kalamazoo, Mich., on Celery Tonic Bitters is now ready, and they want to hear from every druggist who is interested in a plan that has some profit in it for the retail trade. There is 100 per cent profit in handling Celery Tonic Tablets manufactured by this firm. They pay express charges and give liberal time to pay for them.

Every prospective pharmacist who is desirous of obtaining a thorough education should obtain a catalogue of the Illinois College of Pharmacy and carefully note the courses of study which this excellent institution furnishes. This school is now installed in a new building, with new furniture and apparatus, and has six laboratories. It grants the degree of Ph. G. with the usual requirements and also has an advanced course for the degree of pharmaceutical chemist. Write Oscar Oldberg, Dean, 2121 Dearborn street, Chicago, for full particulars, catalogue, etc.

The best soda water is made by those only who thoroughly understand the business. Ordinary soda water can be made by ordinary people who think the dispensing is confined to putting ice in the apparatus and turning a faucet. But it has been noticed that people invariably like the best and will patronize the man who makes the best. Have you done all you can to get the public to come to you for its favorite beverage next summer? Have you polished up your fountain or perhaps bought a new one and forgotten to take the proper steps to learn how to dispense what the people want? If you have, the best thing to be done is to commence studying on this important subject. There is perhaps no better way of doing this than by procuring Saxe's New Guide. This furnishes just what you want and its price, \$3, will come back to you many fold after the people discover that you are following its directions. It is published by the Saxe Guide Publishing Co., 409 Dearborn street, Chicago, to whom all orders should be addressed.

NEW PERFUMES.

Schandeln & Lind, of Philadelphia, manufacturers of "Garwood's Standard Perfumes, have just added to their list two entirely new odors, "Gardenia" and "Sweet-Scented Shrub." As their names indicate, they are of extreme delicacy and sweetness, and cannot fail to captivate the most fastidious taste. To introduce these two odors the firm are making a most liberal offer. With an order for one pint they give a handsome hand-painted glove box containing a half dozen bottles, which retail at twenty-five cents each. With an order for two pints they give one dozen twenty-five-cent bottles, put up in a handsomely decorated handkerchief box. The price of these new odors is \$4 per pint, and the profit made upon these two offers may be shown as follows: One pint costs \$4; sixteen ounces retail at fifty cents per ounce, amounting to \$3; six samples at twenty-five cents apiece amount to \$1.50; the glove box is worth fifty cents, making a total return of \$10 on an investment of \$4. Two pints cost \$8; thirty-two ounces retail for \$16; one dozen samples retail for \$3, and the handkerchief box is worth \$1.25, making a total return of \$20.25 on an investment of \$8.

The two objects for which the druggist should ever aim, that of satisfying his medical friends with first-class preparations, and satisfying himself with a good profit, are supplied by the well-known Webber Pepsin manufactured by Sharp & Dohme. Care in making a preparation which is fully up to pharmacopoeial requirements is sure to settle the question as far as the medical profession is concerned, and the prices quoted on Webber pepsin are quite as sure to settle it from the pharmacist's standpoint. In order, however, to obtain this satisfactory result all around the druggist should be careful to specify the pepsin which will do this, viz.: "Webber pepsin, S. & D."

SWEET SCENTS.

The American woman who does her shopping abroad may come in for a goodly amount of reprehension on account of her lack of patriotic spirit, but she has, nevertheless, a very clever conception of her own interests. For Paris is the city par excellence of shoppers. Nowhere in the world, not even in New York where the great emporiums stretch themselves over whole blocks, can be found finer stores or more varied and carefully assorted wares. For any line of goods to obtain prominence in one of the great Parisian bazaars it must be of the most superior sort.

But it is in its window dressing that Paris stands out pre-eminently at the head. Here it is that the inborn French taste displays itself to the fullest advantage, and lines the boulevards with creations of beauty and artistic harmony. A walk through the shopping district is like a glimpse of some enchanted mart whose wares have been foregathered from the four corners of the earth.

Unlike this country, the windows of the perfumers and hair dressers in Paris are decorated as gaily as those of the milliners, and the great combination stores usually devote one whole window to a perfumery display. One of the most noted of these Parisian bazaars is the great Carnival de Venise, situated on the Boulevard de Capucines. This house is almost exclusively under the patronage of the continental nobility, and is as familiar to the titled aristocrat from the Czar's dominions as to the Parisian woman of fashion. Some four years ago this house took up the Crown Perfumery Company's goods, of London, and to-day the passing pedestrian on the boulevard sees a whole window given up exclusively to a display of the elegant goods of this firm, which have obtained so firm a hold upon popularity as to be absolutely indispensable.

Lentherie, the famous Parisian coiffeur, whose elegantly furnished salons are the resort of the whole Parisian beau monde, is another who has given the greatest prominence to the Crown Perfumery Company's goods, as a passing glimpse at his handsome window on the Rue de Faubourg St. Honore will easily reveal.

The Grands Mallon de Blanc, another of the great stores of the French capital, has recently decided to open a Rayon de Parfumerie, composed exclusively of the Crown Perfumery Company's wares, and after placing an initial order of 20,000 francs has devoted one of their great show windows to a permanent display of these goods.

"Lost three sales." How to avoid it, see page 49.

The unique appearance of the Cacti has always caused these plants to be regarded with interest for their decorative value. The offer of McDowell-Guajardo Hnos, Monterey, Mexico, in an advertisement in this issue will therefore be of interest to druggists who are on the lookout for new features to enliven the appearance of their stores or dress their windows. Send for this firm's price list for 1894 and mention the Era.

Metal brush specialties, manufactured by the Palmer Hardware Manufacturing Co., Troy, N. Y., embrace many articles which the druggist can handle to good advantage, and this firm's catalogue should be in the hands of every enterprising dealer. The "T. M. C." dauber has long been known for its many conveniences, and is claimed to be the best made, though not the highest in price. Many druggists have found it a successful seller.

The success of the Green Fly Button, manufactured by the Fly Button Co., of Maunee, O., in previous years will make them popular candidates for the favor of the public this year. The company are willing to back their faith in the superiority of their goods by an offer of \$100 to the person who will show them something better. See their advertisement in this issue and note prices. They prepay express charges upon direct orders.

Fifty five-cent packages of German Easter Egg Dyes, free of charge, is an offer which the near approach of the Easter season will cause the enterprising retailer to regard with particular interest. J. J. Fleck, of Tiffin, Ohio, is making such an offer, and it only costs a postal card to receive from him some figures which show that there is 165 per cent profit in the transaction. Investigate this and mention the Era in writing.

When all the world is asking for Crab Apple Blossoms and Crown Lavender Salts the druggist who is not posted upon these decidedly popular toilet necessities is far behind the times; 500,000 bottles were sold last year, and the retail drug trade should have a good share of the patronage which these goods will receive this year. Write the Crown Perfumery Co., 160 Fifth avenue, New York, for price lists.

SOLID COMFORT.

The application of this name to a dissecting microscope, and then making the microscope true to its name is an action which will cause the latest production of Queen & Co., of Philadelphia, to be highly appreciated by educators and students. Among the many new desirable improvements which this instrument possesses are an arrangement of the pinion-head where it can be reached equally well by either hand and the solidity and stability afforded by wide-spreading hand-rests. The reflector is double; one face of concave glass, silvered, focussing upon the object; the other is a matt surface, of plaster, for a white cloud illumination. There are two lenses, giving when combined 13-fold magnification, or separately 7 and 13. The distance from rack-pillar to the optic axis or center of stage-plate is 15-3 inches. The price of this instrument, complete with two lenses and hand-rests, is \$12.50, and all interested in microscopy should write for full description to Queen & Co., Incorporated, Philadelphia, Pa.

Nelson Morris & Co., of Chicago, manufacture both solid and fluid extracts of beef and ask for the patronage of the drug trade upon the claim that their goods are superior to all other brands, are put up in the handsomest packages, and are sold at the lowest prices. Their Clarified Fluid Extract of Beef already enjoys a favorable reputation with both the trade and the public, and they ask for trial orders on this brand.

The Crystal-Rock Finishes and Liquid and Paste Fillers have done much to enhance the reputation of the Buckeye Paint and Varnish Co., of Toledo, O., and they will do the same for the retailer who handles them. This company manufactures a very complete line of paints, colors, varnishes, painters' sundries, etc., and they invite correspondence from all druggists who handle this line of goods. Write them for prices and mention the Era.

Some druggists make a practice of giving a small corkscrew with every bottle of medicine they put up. The reason they can do this is because they get their corkscrews of Clough & Macconnell, 132 Nassau street, New York, who manufacture some which they sell as low as 10 cents per gross. As this is such a slight expense many druggists find it pays to give them away, on account of the increased satisfaction on the part of their customers.

The fifty-page catalogue which Dr. H. L. Bowker & Co., of Boston, Mass., will send upon application gives a great deal of information regarding the extensive line of distilled soda water extracts manufactured by this firm. Bowker's Birch Beer, Root Beer, Bitter Beer, Ginger Ale and Fruit Flavors are well known to the trade and popular with the public, and should have some attention when the time comes for the selection of such goods.

Every druggist should own a good microscope, but in buying an instrument of this sort a great deal of careful discrimination is necessary. This can be exercised only after considerable study of the instrument itself and the work of the different manufacturers. J. Zentmayer, 208 S. Eleventh street, Philadelphia, calls attention in this issue to his histological microscopes, and simply asks intending purchasers to send for his catalogue and carefully study it before ordering.

Frederick Stearns & Co., of Detroit, have something to say in this issue relative to Dike's Pepsin, and its conformity to the new standard of the U. S. P., 1890. Note particularly their offer to sample your physicians with it on receipt of their names and addresses. It is kept in stock by all jobbers, and costs seventy-five cents per ounce. If unacquainted with this pepsin, send for sample for yourself and apply the U. S. P. tests, which are reprinted with the firm's advertisement.

The name of the Searle & Hereth Co., of Chicago, is well known to the drug trade through the success of their specialty, "Triticin." They also supply the wants of the pharmacist by manufacturing a complete line of standard pharmaceuticals, and their efforts in this line are having a noticeable effect in directing the trade toward Chicago as a city in which all their wants may be supplied, both in a manufacturing and jobbing line. Send for this firm's price list.

Lee's patented Glass Box Jar for antiseptic gauze is a great advance over the old methods of keeping these important surgical adjuncts, and the druggist who keeps surgical dressings in this shape is sure of the patronage of the medical profession. This box is manufactured by the J. Ellwood Lee Co., of Conshohocken, Pa., who also manufacture a very complete line of surgical goods and druggists' sundries. Druggists who have not received their latest price list should send for it.

Loring & Co., 222 Hamilton Place, Boston, Mass., call the attention of the retail drug trade to the extensive advertising which is being done in the newspapers of Dr. Edison's Obesity Remedies. This is sure to create a demand for the preparations which the druggist can easily supply. The manufacturers furnish an elegant show card for window display, and the jobbers allow 25 per cent off the retail price. Send for illustrated catalogue, and article on obesity.

There is only one kind of chocolates that can be handled with advantage and profit, and that is the best. Every druggist who handles side lines of this character, with the avowed intention of drawing trade, should be very careful not to handle goods that drive trade away. The Pettit Manufacturing Co., of Canajoharie, N. Y., have something to say in this issue upon fine chocolates, and it will pay to correspond with them for their terms and points on their plan of assisting in selling their goods.

The Eagle White Lead Works of Cincinnati, O., have been in existence since 1842, and the reputation of the Eagle Brand of White Lead rests upon a trial of its merits which has extended over half a century. The present management of this company is independent of all trusts or combinations, its prices are based upon a fair remuneration for the capital and labor expended, and the quality of goods is of a character which takes into consideration the highest competition.

Waxed floors and rugs are now the proper thing in the way of inside house furnishings. W. H. Bowdler & Co., of Boston, Mass., do not claim to know anything about the rug business, but they do claim to know something about the wax that gives the best results. They also claim that the person who makes one trial of Bowdler's Floor Wax is forever a competent authority upon the same question. The dealer who handles this firm's goods has no trouble in guaranteeing and selling them.

The No. 20 Vaseline Atomizer manufactured by Whitall, Tatum & Co., Philadelphia, is one which is adapted for a great variety of uses. All kinds of medicinal or medicated oils can be used with it, and vaseline and ointments can be placed in the bottle and melted as desired. The atomizer is furnished with detachable throat and nasal tubes, thus enlarging its sphere of usefulness. This firm call attention in their advertisement in this issue to a graduated medicine spoon which is quite popular as an advertising medium for the retail druggist. The spoon is of glass and the name of the retailer, which appears upon the bottom, is an appropriate reminder when the taking of drugs becomes necessary.

Liq. Auri et Arseni Bromidi-Barelay, or "Arsenuro," is a pharmaceutical preparation which is now receiving considerable attention from the medical profession as one which affords a feasible means of employing the therapeutical properties of gold. As the drug trade will undoubtedly be called upon to furnish this preparation as it becomes better known, the manufacturers, E. M. Johnson & Co., 28 Platt street, New York, call the attention of the trade to the remedy in an advertisement in this issue.

The Wm. S. Merrell Chemical Co., of Cincinnati, have some suggestions to make to pharmacists in their advertisement in this issue. While these of course refer to the preparations of this firm they contain many ideas of general application to the practice of pharmacy. Particular attention is directed to their offer to send to druggists, free of charge, samples, printed matter, etc., for distribution to physicians, thus giving the retailer an opportunity to work up and retain a good trade in first-class pharmaceutical preparations.

The Hammondsport Wine Co., of Hammondsport, N. Y., say that the wants of the drug trade will command their preferred attention. This means that they not only give prompt and courteous attention to all orders sent them, but that their goods are of a character which are exactly fitted to the needs of the trade. They manufacture the Ports, Sherries, White Tokay, Madeira, Sauterne, Catawbas, Clarets, etc., and they make a specialty of Cognac process brandy, and their Golden Age champagne. Remember them when anything in this line is wanted.

The element of perfect safety which is so necessary a requirement in the soda water business with its frequent accidents due to the great expansive power of carbonic acid gas, seems well assured where the patented steel fountains of the Iron Lad Manufacturing Co., 22 Cliff street, New York, are employed. These fountains are made of the best quality of steel, riveted, sweated and soldered at all joints and lined with pure sheet block tin and a patented brass bottom lends additional security. The use of an apparatus of this character will do much to relieve that feeling of nervousness which prevails when the old style with its history of accidents is used.

The offer to furnish 10 oleographs of "The Puppies" with an order for Bell-Cap-Sic plasters is still open, although the demand has called for an astonishing number of both plasters and pictures, in fact the number of the latter, which is seen on every hand, almost leads to the belief that half the people of the United States must be wearing a Bell-Cap-Sic plaster and dealers in other lines of goods are actually using these pictures in their show-windows to draw people up to examine their goods. J. M. Grosvenor & Co., of 105 Milk street, Boston, make an addition to their Bell-Cap-Sic advertisement in this issue by calling attention to their dentifice "Kremlin Cream." This preparation has already been brought to public notice by advertising in the high class magazines and the demand which has arisen for it has led the proprietors to notify the drug trade that there is such a preparation on earth and tell where it can be obtained. They send samples to druggists. Write and get a sample.

If you are studying upon the advisability of making improvements in the appearance of your soda fountain, you should write to John Phillips & Co., Detroit, Mich., and see what they can do for you. One of their artistic soda fountain taps placed upon an old or ordinary fountain will do wonders in improving its appearance and bring it up to date. One great advantage in this method of improving the appearance of a soda fountain is its comparative cheapness. Write for prices and designs.

Iatrol, besides being a perfect substitute for iodoform and similar antiseptic substances, is a compound which has a wide range of application from a pharmaceutical standpoint. It is soluble in alcohol, ether, chloroform and compounds containing them; insoluble in water, glycerine, the fixed oils and vaseline, but can be incorporated with them in the preparation of ointments, suppositories, etc.; slightly soluble in warm water, and can be used in the latter form in the preparation of antiseptic solutions. These features, with its therapeutic properties as an antiseptic and germicide, render it a preparation which is acceptable to both the professions—medicine and pharmacy. Full information regarding it may be obtained by addressing the Clinton Pharmaceutical Co., Syracuse, N. Y.

The Dawes MFG Co., 11-16 Wood street, Pittsburg, Pa., report that they are still doing a good business in druggists' glassware. They received 67 orders in ten days during the dulllest portion of the late dull season. Among the stores fitted out were those of W. P. Elsbree, Albany, N. Y.; Wilson Bros., New Carlisle, Ohio; D. M. Maloney, Indianapolis, Ind.; F. B. Stone, Howell, Mich.; T. F. Wilhelm, Arlington, Ia.; Nicolas Zender, Ottawa, Ill.; H. C. Karber, Champaign, Ill.; W. H. Kasten, Nesquehoning, Pa.; J. Delderich, Detroit, Mich.; Miller & Son, Newark, Ohio; Crenshaw & Young, Lexington, Mo.; Wickman & Co., Fowlerville, Mich.; R. F. Case, St. Paul, Minn.; R. O. Sweeney & Son, Lester Park, Minn.; T. E. Yohn, Wilmot, S. D.; Sorcen & Slodderkrass, Virginia, Minn.; J. Pallen, St. Paul, Minn.; J. R. Ross, Gibson City, Ill.; J. E. Trolen, Tisklawwa, Ill.; Reeves & Co., Carmi, Ill.; and Finney & Trader, Dennison, Ohio.

It is gratifying at a time like this when "physicians' supply houses" are springing up like mushrooms in all parts of the country, and making vigorous attempts to divert the trade of the physician from its legitimate channel, to note the courageous stand of the old reliable manufacturing house of The Tilden Co., of New Lebanon, N. Y., in favor of the retail druggist. They claim that their interest and that of the retailer are mutual. They therefore propose to put any reliable, wide-awake, aggressive retailer in a position where he may successfully compete against the class of dealers named. It is believed that the trade will do well to sustain them in this fight against the demoralizing effect of the kind of trade referred to. It would be well for all those who are interested in such a movement to correspond with the firm relative to an offer they are now making. They are now engaged in sampling the physicians of the United States, thus paving the way for the most effective warfare, through the retail druggist, on their common enemy.

"It is a curious thing," says E. N. Hurt, the label printer of Buffalo, N. Y., "that a very large percentage of the druggists of the older part of the country the eastern and southern states—use ungummed labels, while those of the newer part—the western and middle states—use gummed labels. I think that this is attributable to the fact that when the druggists' label business was in its infancy the quality was poor, and the eastern and southern people got tired of gummed labels, that would curl with the least heat and creak with the least dampness, and have come to the conclusion that gummed labels are a failure. And I do not blame them, as they have tried one after another of the label firms, and still find the same trouble. If they would use my labels they would have no further difficulty, for although they will curl and will creak under extremes, still they do so to such a small degree that it is unnoticeable, and they are such an improvement over any heretofore put on the market that I should hardly be telling an untruth if I said that they would not curl or creak at all."

YOU WANT GOOD BRUSHES.

Painters, editors and brush manufacturers and others have suggested methods of swelling with water the holding parts of paint brushes. We will not add to the fund of ideas expressed on this subject, but will suggest a better thing to do than to place brushes in water to soak. We recommend the use of brushes that do not require soaking. They are the Compressed Ferrule Brushes, made round and oval, full center and open center, sizes 3-0 to 8-0, and are made by John L. Whiting & Son Co., Boston, and sold at the same prices as old atyle brushes. They are ready to use when they sell them, and will never shrink or dry up; therefore it is never necessary to soak them. The holding parts are entirely of metal, and being nickel plated have a very neat appearance. Another thing that is uppermost in the mind of every painter, is blinding or bridling his brushes. Many ingenious devices have been invented for blinding brushes, but we think nearly every painter will agree with us when we say that no successful patent binder has yet been invented. Our experience leads us to believe that the old-fashioned way of binding with twine is the only practical way, and will not be superseded, as by this method every painter can bind a brush exactly as he wants it. A better method of fastening the twine has been wanted, as painters have been annoyed by bungling loops and tacks driven into the brush heads. The perfect way to fasten the twine binder has been discovered in the patent "Hold-fast" Bridle Catches. They are attached to the Compressed Ferrule Brushes, and all other paint and varnish brushes manufactured by John L. Whiting & Son Co., and at no extra charge. When buying brushes insist on having them plainly stamped with their name, and get brushes having stock in them exactly adapted to the purposes for which they are made, and are up to date in all improvements. The Whiting brushes received two highest awards at Chicago, World's Fair, 1893; one for best methods of manufacturing brushes, and one for best materials.

"One year's time." How to get it. see page 49.

The Beef Tea dispensed by the Columbian Exposition Soft Drink Co., at the World's Fair last summer, was prepared from Libby's Fluid Beef, manufactured by Libby, McNeil & Libby, of Chicago. The manufacturers claim that this preparation, as well as the Extract of Beef made by them, is prepared under a new process at a low temperature, retaining the albumen in a fresh and palatable form, free from rank taste or smell. Libby's Fluid Beef and plain soda or water, led, with a dash of celery, is a delightful summer drink.

We take great pleasure in announcing to our patrons and the trade that we have leased the premises at 264 Fifth avenue, Chicago, where our representative will be glad to meet all intending purchasers of marble soda water apparatus or machinery for manufacturing and bottling carbonated beverages. We call attention particularly to our display of onyx marble apparatus. Chaste in design, they are also unrivaled for durability and thoroughness of construction. Buyers will find goods ranging in prices suitable to the wants of all, and any inquiry regarding same will receive prompt attention. Note our address: A. D. PUFFER & SONS.

Perfect facilities and undivided attention to the manufacture of one preparation are two of the means by which the Royal Malt Extract Co., of Philadelphia, are enabled to turn out a product which fully meets all the requirements of medical practice. They are willing to divide these undoubted advantages with the retail drug trade and to furnish their malt extract for sale under the druggist's own label. By devoting all their energies to the manufacture of their product and saving the expense which the advertising of their goods as a proprietary preparation would entail, they are able to furnish a first-class article at a price which leaves a large margin of profit for the retailer.

PACKERS' PEPSIN.

To the Pharmaceutical Era, Detroit, Mich.

Dear Sir—We enclose herewith a copy of letter sent to Druggists' Circular, which explains itself. Will you kindly give this letter a space in your valued journal.

Yours truly,

THE CUDAHY PHARMACEUTICAL CO.
South Omaha, Neb., Jan. 5, 1894.

Editor Druggists' Circular, New York, N. Y.

Dear Sir—On page two of your January issue under the head of "A new standard for pepsin," we note and quote as follows: "It is known that large quantities of inferior pepsin made principally by pork-packers have been returned to them by their patrons."

Whether or not this is a thrust at ourselves, we do not know; but, whether it is or not, we are willing to pick up the gauntlet. So far as the Cudahy Pharmaceutical Co. is concerned such a statement is absolutely without foundation, and it is a matter of simple justice that a slur of this kind should be met and denied. Under all the varying conditions of business our returns and exchanges have not amounted to 2 per cent of our total sales. Inasmuch as you put your item in the most prominent editorial column, it goes without saying that you will give this communication the same publicity.

Yours truly,

THE CUDAHY PHARMACEUTICAL CO.

Elegant pharmacy calls for the use of many things which but a few years ago were unheard of. Many druggists think that fine containers are a tax upon the consumer. So they are, but it is a matter of fact that the consumer persists in going to stores where goods are put up in the most attractive manner. The wise dealer, therefore, will always be on the lookout for new ideas in this line, and will find in Hunt's Pleated Paper Bottle Caps, sold by McKesson & Robbins, of New York, something worthy of attention. They are made in nine colors, and the name and address of the purchaser can be embossed on each cap, which affords a neat and unique method of advertising. Send for samples and illustrated price list.

A magazine writer not long ago deplored the tendency of the American people to ignore the musical and poetical language of the primitive inhabitants of this country in applying names to our cities, towns, rivers, etc. He expressed a decided preference for such names as Onondaga, Saskatchewan, Chicago, etc., in place of Jonesville, Smithtown and other of similar derivation. He was undoubtedly right. The name Conestoga is an illustration upon this point. It is one which can be easily remembered, but for the drug trade it has a double significance. It is not only a reminder of times of the noble red man, but is associated with one of the important articles of the pharmacy, viz.: Corks. A great many druggists keep this connection always in mind, and are, therefore, always suited with Conestoga corks.

Lord, Owen & Co., wholesale druggists of Chicago, have recently inaugurated a new rule regarding shipments which their customers greatly appreciate. Realizing that many of their patrons in meeting the demands of their trade have to procure certain goods as quickly as possible, and knowing that many retailers do not care to carry large stock in certain commodities, they have announced that hereafter, as far as possible, all orders for goods will be filled and the goods shipped upon the same day the order is received. This plan has already resulted in a considerable increase in orders from points quite a distance from Chicago, as it is found that promptness in executing orders often more than compensates for the extra distance which the goods have to travel. The firm ask the trade to favor them with trial orders and see how quickly and satisfactorily they can be filled.

No class of dealers more thoroughly appreciate purity in the articles they sell than do druggists. When a customer learns that he can absolutely depend upon the goods a druggist sells him, that druggist has gained a permanent customer. Purity in his goods is therefore a most essential point in the druggists' trade. It is proper then for him to see that the whiskey he buys is of the best, as that is an article that enters largely into his business, both in compounding prescriptions, and as shelf goods. It is well known that the purest and finest whiskey in the world is that celebrated brand, Clarke's Pure Rye. Colburn, Birks & Co., of Peoria, Ill., who are the sole distributors of this whiskey, desire but one trial to be given it to prove their oft-repeated assertions that Clarke's Pure Rye is the

purest and most profitable goods to handle.

The Seidlitz Powders manufactured by J. Fred Gibson, Providence, R. I., have always enjoyed a favorable reputation for the excellence of the materials employed, correct weight and the attractive manner in which they are put up. As Mr. Gibson makes a specialty of this particular preparation the trade will not be disappointed in demanding an article of high standard. Write for sample box.

A HAPPY HIT.

Made by the Eastern Star Perfume at a Reception in Iowa.

The Iowa Masonic Library and Museum at Cedar Rapids is well known throughout Europe as well as America, and is the only library building of its kind in the world. It is a magnificent fire-proof structure, and contains the largest collection of Masonic works ever gathered under one roof, beside countless curios, and a fine archaeological collection.

Under the successful management of Mr. Parvin, the grand secretary and librarian, every department of the place is fitted with taste and elegance in all its appointments, combining to make it most attractive and interesting to visitors. At a recent reception given in the library building by Mr. and Mrs. N. R. Parvin, the Jackson perfumes scored a very happy hit, an account of which we copy from the Cedar Rapids Daily Republican:

"The refreshments were very elegant, and the favors which each guest received as the exit was passed are entitled to a description and explanation. Last summer when Mr. Parvin was at the Columbian Exposition gathering specimens from all quarters to be placed on exhibition at the Masonic Library, he met, during his rounds, many Masons. One day he fell in with a party of perfume manufacturers, and one of the number was a royal fellow named Charley Jenks, of the perfumery house of Foote & Jenks, Jackson, Mich. He and Mr. Parvin became well acquainted, and upon the suggestion of the Cedar Rapids Mason, the Jackson Mason decided to give one of his brands of perfumery the name of the "Eastern Star." When Mr. and Mrs. Parvin issued the invitations to their reception, they very naturally sent one to Mr. Jenks. Imagine their surprise yesterday morning when they received from Jackson a large case of "Eastern Star" perfumery, neatly put up in small bottles with gay ribbons around the necks, to be used as souvenirs of the evening. Accompanying these was a handsome silk banner, on which was painted the well-known star, and pinned to it a note which read: "Your guests need but press the bulb, we do the rest." This was meant for the big bottle of "Eastern Star," with the syphon attachment. During the evening Mr. Jenks' perfume was tried, and it can be said with satisfaction to all. Everybody received a bottle of "Eastern Star."

P. S.—Trade tributary to New York City can now be supplied with Foote & Jenks' Perfumes by

McKESSON & ROBBINS.

See list of odors in February 1st issue of the Era, or write the house for their illustrated catalogue and sample of Eastern Star.

A tablet machine is an article which the majority of retail druggists could make frequent use of if they possessed one. Those who desire to own one or are halting between two opinions as to the practicability of purchasing a machine should write to Robt. Shoemaker, Jr., 215 Race street, Philadelphia, for prices and information upon the machines which he manufactures. He makes several sizes for both hand and steam power, which are adapted for both the manufacturer and the retail druggist.

The reason why many retail druggists do not handle Kumyss is because they think it impracticable. This arises from the fact that they have not investigated the matter. Kumyss is now recognized by the medical profession as a valuable remedial agent, and would be prescribed oftener if the physician knew it could be obtained readily. The drug trade can learn all about Keir Kumyss by writing to R. E. Rhode, 504 N. Clark st., Chicago, and will be furnished with facts and figures showing that it is a profitable article to handle.

Silurian Mineral Spring water is put up in several forms to meet the requirements of all classes of patrons. For those who desire a simple medicinal water the "Still Silurian" is recommended, while those who seek a delicious medicinal beverage will find themselves suited with either "Effervescent Silurian," "Silurian Ginger Ale" or "Silurian Wild Cherry Phosphate." Druggists who wish to meet the various demands of their customers should address Silurian Mineral Spring Co., Waukesha, Wis., for prices, terms and 52-page pamphlet.

The great success which has always attended the sale of Santal-Midy capsules can best be explained upon the ground of actual merit. The Oil Santal used in their manufacture is distilled by Midy's process from freshly-cut Mysore sandal wood and is greatly superior to the ordinary commercial oil. The capsules containing 5 minims each of the oil are put up in bottles containing 40 capsules and are sold in the United States by E. Fougere & Co., of New York. The reputation of this preparation makes it a sure seller and the profit in handling it makes it a favorite with the drug trade.

Spokesman of the relief committee—"Now, Mr. Pillsburger, the wealthy merchants are assisting in our work, not only by contributions, but, some of them, by selling the necessities of life, such as tea, bread, coal and wood, at cost. What can you do for us?"

Pillsburger (the druggist)—"You will find me ready to help der unemployed. Put me down as der man vat sells bostage stamps at gost!"—Puck.

C. F. Rump & Sons, of Philadelphia, manufacturers and Importers of pocket-books and fine fancy-leather goods, have found that their rapidly increasing business demanded more space, and have moved into their new building, corner Fifth and Cherry streets. This building has a frontage of 157 feet and comprises seven lofty floors and basement. They occupy the entire building and employ from 300 to 400 hands, and are in a position to take care of all orders with which their patrons may favor them. They have also opened a branch salesroom in the new Cable building, Broadway and Houston street, New York.

A recent advertiser in the "want" columns of the Chicago Tribune shows a versatility both in business attainments and advertising ability, which ought to command a reward. The "ad" reads as follows:

Wanted—Situation by a hankry young man. Will, for a slight consideration and regular meals, give lessons in German or painting; milk, care for horses, give instructions in muddling and drawing, wash or iron, clean windows, take care of children, run errands, do carpenter work, plastering or stone cutting; will run an iron foundry, or a hotel, dry goods or hardware store; keep books, scrub, drive carriage or dump cart; cook or bake, do anything and do it well and take silver in payment for services. Address at once H. H. H. N. B.—Will also do editorial work.

The uniform purity of all the chemicals manufactured by the Herf & Frerichs Chemical Co., of St. Louis, has caused many of the leading physicians and dispensers to specify "H. & F.," and their preparations can be obtained through any of the jobbing houses of the country. A favorite with all druggists is their substitute of bismuth U. S. P., because it is not only free from arsenic, silver, lead, etc., and devoid of acid smell and taste, but is very bulky, without containing a trace of subcarbonate, so that dispensers find it more valuable for many purposes than the heavier kinds often met with in the trade.

The introduction of Upjohn's Friable Pills marked a distinct advance in the pharmacy of this particular method of medication, and the constantly increasing demand for them is evidence of the favor with which they are regarded by the medical profession. More than five hundred different kinds are kept in stock and the list should be in the hands of every druggist who desires to give perfect satisfaction in the goods he handles. The Upjohn Pill and Granule Co., of Kalamazoo, Mich., are the largest exclusive pill manufacturers in the world and their facilities are unexcelled for turning out private formulae under their improved process.

What conclusion have you and your physicians come to regarding the employment of cachets as a means of dispensing powders in a manner which will be agreeable to the patient? If you are still undecided upon the question, the matter can be easily settled by sending to Ward & Co., No. 3 Union Square, New York, for free samples of Chapeaur's cachets and showing them to your physicians. The expense for the cachets is practically nominal, and their utility behind the prescription counter is recognized at once by the pharmacist who is acquainted with the laborious task of filling a prescription which calls for pills.

In making preparations to meet the demand which is sure to arise next summer for disinfectants, the merits of the Buffalo sanitary fluid should not be overlooked. The future of all preparations of this kind depends upon their success in the past, and this point is one which should be recognized by the retailer as well as by the manufacturer. The former should aim to sell the article which is the most effective, and the aim of the latter should be to furnish such products. This particular preparation is a soluble carbolic acid sold upon its merits, and the manufacturers, Schoellkopf, Hartford & MacLagan, Limited, 3 Cedar street, New York, claim for it the position of the ideal disinfectant.

BOOK REVIEWS.

NATIONAL DISPENSATORY.* This is the first of the two popular dispensatories to appear since the revision of the United States Pharmacopoeia. It is a very decided improvement upon the preceding issue, for the number of years which have passed since its immediate predecessor appeared have seen very great progress in pharmaceutical matters and to bring forth the work up to the times a large amount of labor and compilation of published material have been required. That this task has been satisfactorily accomplished even a casual examination of the work affords abundant evidence. Of the original editors and authors but one is now living, but he has had the co-operation of those well qualified to carry out the work after its well conceived plan. Prof. Malsch, recently deceased, had virtually completed his labors in this revision, but what remained has been confided to Prof. Chas. Caspari, of the Maryland College of Pharmacy. There are 1,903 pages found necessary. There is no separation of matter into primary and secondary lists, but a strict alphabetical arrangement of medicinal substances is followed throughout the work. Every page contains evidence of careful revision, and the addition of new material and the statements made are thoroughly in accord with the progress of pharmacy up to the immediate present. The manner of presenting the information under each title has been little changed. There are given first the official name and a list of the pharmacopoeias by which the article is recognized, the common name, and the various synonyms and names in other languages. In the case of chemicals the formula and molecular weight are stated. Then in order are considered the origin, preparation, properties, tests, pharmaceutical uses, medicinal action and value, and under the same division in nearly every instance is given a large amount of collateral information, descriptions of allied bodies and the like, with a comparison of their values and characteristics. Authority to use for comment the new United States Pharmacopoeia has been granted by the committee of revision, and this privilege is liberally and satisfactorily used. A feature which many will regret but many more approve is the plan of giving metric weights and measures in the formulas their equivalents in the apothecaries' system, thereby greatly retarding the general adoption of the official system. The host of new remedies and synthetic

*The National Dispensatory. Containing the natural history, chemistry, pharmacology, actions and uses of medicines, including those recognized in the pharmacopoeias of the United States, Great Britain and Germany, with numerous references to the French Codex. By Alfred Stille, M. D., LL. D., Prof. Emeritus of the theory and practice of medicine and of clinical medicine in the University of Pennsylvania; John M. Malsch, Ph. M., Phar. D., late professor of materia medica and botany in Philadelphia College of Pharmacy, secretary to the American Pharmaceutical Association; Charles Caspari, Jr., Ph. G., professor of pharmacy in the Maryland College of Pharmacy, Baltimore, and Henry C. C. Malsch, Ph. G., Ph. D., New York, editors. Thoroughly revised, according to the new United States Pharmacopoeia with decennial revision, 1894. In one magnificent imperial octavo volume of 1903 pages, with 320 elaborate engravings. Cloth, \$7.25; leather, \$8. With ready reference thumb-letter index, cloth, \$7.75; leather, \$8.50. Philadelphia, Lea Brothers & Co.

products of recent introduction has received abundant consideration. Typographically, the book is a very great credit to the publishers, and in all respects the pharmaceutical profession will accept with eagerness this revision of a work which for so long has been of indispensable value to its possessors. In the appendix are gathered descriptive chapters on reactions and tests, and the tables which form so important a part of the Pharmacopœia. In addition there are numerous tables of service, and particularly acceptable is an alphabetical list of official drugs, showing the preparations of the United States and British Pharmacopœia containing them. The very complete general index is supplemented by an index of therapeutics, which concludes the volume. The foot note gives the prospective purchaser information additional to that in this brief notice.

AGRICULTURAL ANALYSIS.—This work is eminently valuable to the student who desires to familiarize himself with approved methods of agricultural analysis, and it will be of equal service to the analyst in active work in this branch of analysis. Its descriptions of apparatus and methods are concise, yet sufficiently full for all practical purposes, and as a laboratory hand book to be followed by the performance of the experiments and manipulations described it can hardly be improved upon. The first chapter consists of directions and illustrations of the numerous operations used in quantitative analysis, with practical examples for experiment.

Part 2 is divided into two sections, the first containing gravimetric estimations, wherein are described the methods of estimating iron, sulphuric acid, potash, phosphoric acid, carbonic anhydride, calcium. The second section considers volumetric estimations and directions for the preparation of standard solutions, indicators, etc., and their use in estimating the various substances. Part 3 is devoted to the estimation of nitrogen and the same detail characterizing all other portions of the work is followed out. The remaining divisions comprise chapters on samples and sampling, analysis of feeding materials, analysis and valuation of manures, soil analysis, analysis of dairy produce, and water analysis.

The work seems complete in every detail, and we have nothing but praise to offer, with the exception of a criticism upon the bookbinder's part of the work. According to the English custom, the leaves are uncut and untrimmed, which constitutes an annoyance to the average reader and student.

DISEASES OF PERSONALITY.—In 1891 there was noticed in this department the appearance of this work, which is published in pamphlet form, 157 pages, price twenty-five cents, issued by the Open Court Publishing Company, of Chicago. That it has gained very considerable popularity among a certain class of readers and thinkers for whom it was specially prepared, is evidenced by the fact that this later edition has become necessary. Those interested in psychology will be interested in its perusal. If

*Agricultural Analysis, a manual of quantitative analysis for students of agriculture. By Frank T. Addyman, B. Sc., F. I. C., lecturer on agricultural chemistry, University College, Nottingham. Cloth, 290 pages, illustrated. London, New York, Longmans, Green & Co.

preferred, it can be procured in cloth binding for seventy-five cents.

***HOW TO DO BUSINESS.**—Is the title of a work by George N. McLean, devoted to a consideration of the theory of business science. Chapters are devoted to the choice of a business, purchase of stock, marking goods, advertising, selling goods, cash and credit, expenses and accounts, investment of profits, insolvency, vocabulary of business terms, employing clerks, etc., etc. The author states that no attempt has been made to present a formal code of mercantile laws, nor to write a systematic treatise on trade, but the aim has been rather to present practical illustrations and theories and to combine precept with example.

DOLLARS AND SENSE FOR FIFTY CENTS.—Is the title of a "money-making booklet for business men of brains" by that eminent Doctor of Publicity, Nathaniel C. Fowler, Jr. It is full of good advice for advertisers and presents many illustrations, showing how advertisements should be constructed, also several showing how they should not be constructed. It is published by The Trade Co., 299 Devonshire street, Boston.

MAGAZINES.

The following is a brief mention of the important features of the February magazines:

Outing has a table of contents which is decidedly attractive to the lovers of winter sports. It contains "Invisible Chains," by Louise D. Mitchell; "The Home of the Hulero, or Canoeing in Honduras," by E. W. Perry; "The Price of a Name," by E. H. Harrison; "Hunting in Polar Regions," by J. M. Mills, M. D.; "In the Land of Josephine," by W. L. Beasley; "Jamaica for Cyclists," by Alan Eric; "Alaskan Boats," by Lieut. J. C. Cartwell; "A Day's Sport in the Caroline Islands," by S. H. Watts; "A Path Through the Woods," by Jas. Buckham; "In Another World Than Ours," by Grace E. Channing; "Trawling With Gloucester Fishermen," by J. Z. Rogers; "A Sportsman's Taxidermy," by L. H. Smith; "A Championship Hockey Match in Canada," by C. G. Rogers; "The National Guard of Pennsylvania," by Capt. C. A. Booth.

Lippincott's complete novel is entitled "The Picture of Las Cruces," by Christian Reid, and deals with the curious experience of an American artist at the ancient house of a noble Mexican family. Three chapters of Gilbert Parker's story, "The Trespasser," are given in this number. Other articles of interest are: "Dr. Pennington's Country Practice," by Butler Monroe; "Dick," by G. G. Bain; "A House That Jack Built," by P. A. Tucker; "Study of Pawnbrokers," by Champion Bissell; "The Science and Art of Dramatic Expression," by Alice W. Rollins; "Norwegian Hospitality," by Hjalmar Hjorth Boyesen; "Freaks," by Charles Robinson, and "Talks With the Trade: Have Young Writers a Chance?"

The Century appears with the additional title of "Midwinter Number," and its prominent features in the way of fiction will make it more than usually acceptable to the reading public. Mark Twain's story, "Pudd'nhead Wilson," shows several incidents of antebellum days, which partake of the dramatic. Mary Halleck Foote writes of la-

bor troubles in a story called "Coeur d'Alene." "A Romance of the Faith," by Herbert D. Ward, is a piece of fiction whose hero is Abraham, father of the Jews. Other stories are: "The Guests of Mrs. Timms," by Sarah Orne Jewett; "Mr. Ebenezer Bull's Investment," by Richard M. Johnston, and "The Matinee Monotones," by George Wharton Edwards. February being the birth-month of Lincoln and Washington, two hitherto unpublished portraits of the latter are produced, and "Lincoln's Place in History" and "Lincoln's Gettysburg Address" make the number notable in a historical sense.

St. Nicholas contains a sequel to the story of "Mowgli," by Rudyard Kipling, entitled "Tiger! Tiger!"; "Towed by an Iceberg," by J. O. Davidson; "Recollections of a Wild Life," by Dr. Eastman; "A Skater's Strategem," by Kate W. Hamilton; "Benjamin Franklin," by Brander Matthews; "The Quadrupeds and Monkeys of North America," by William T. Hornaday; "Tom Sawyer Abroad," continued, by Mark Twain; "The Dead Letter Office," by Patti Lyle Collins; "Babette," by Mary A. Winston, and "Toinette's Philip," continued, by Mrs. C. V. Jamieson.

A reading of the table of contents of Popular Science gives added significance to the title of the publication. Dr. Andrew D. White contributes the first installment of a series of papers on "New Chapters in the Warfare of Science"; Prof. W. S. Windle furnishes "Notes From a Marine Biological Laboratory"; C. S. Ashley writes of "The Relation of Evolution to Political Economy"; S. J. Hickson, of "Physical Conditions of the Deep Sea"; W. Mills of "Heredity in Relation to Education"; Mrs. E. B. Dietrich of "The Circassian Slave in Turkish Harem"; Jas. E. Humphrey of "Where Bananas Grow"; Miss E. A. Youmans of "Tyndall and His American Visit"; Jas. Monteiuh of "The Psychology of a Dog"; Miss E. L. Macdonell of "The Superstitions of French Canadians"; M. H. Coupin of "The Wandering Jew at the Salpêtrière"; Prof. J. H. Gore of "The Shape of the Earth from a Pendulum"; Joseph Prestwich of "The Position of Geology," and Prof. M. E. Anderson gives a "Sketch of David Jordan."

The North American Review is strictly up to date and is replete with discussions of the important questions of the day. The new president of the Swiss republic writes of "My American Experiences"; Gov. Tillman writes of "The South Carolina Liquor Law"; Sir John Lubbock of "The Income Tax in England"; Senator Roger Q. Mills of "The Wilson Bill"; Rev. Dr. Parkhurst and John W. Goff write of municipal reforms which are needed in New York city; the Right Rev. Monsignor Bernard O'Reilly writes on "Territorial Sovereignty and the Papacy"; Brazilian Minister Mendonca on "Latest Aspects of the Brazilian Rebellion." The workings of the customs administration act under the old and the proposed new law are discussed by the assistant secretary of the treasury, Chas. S. Hamlin; Margaret Deland writes of "A Menace to Literature," and Dr. Cyrus Edson discusses the "Evils of Early Marriages;" the question, "Are We a Plutocracy?" is not definitely answered by William Dean Howells, but his treatment of it is almost equal to an affirmative. The greatest question of the day, "How to Help the Unemployed," is answered by Henry

*How to do Business.—By George N. McLean, cloth, 377 pages, price \$2. Chicago: Jefferson Jackson, 45 Dearborn street.

George by calling attention to the views of the new school of political economy, of which he is the acknowledged leader.

The Atlantic is fully up to its high standard of literary excellence, as is indicated by the table of contents, which shows "The Educational Law of Reading and Writing," by Horace E. Scudder; "Tammany Hall," by Henry C. Merwin; "Francis Parkman," by Oliver Wendell Holmes; "Hamilton Fish," by J. C. Bancroft Davis; "Recollections of Stanton Under Lincoln," by H. L. Dawes; "For Falstaff He is Dead," by Grace McGowan Cooke; "From Literature to Music," by R. J. Lang; "In a Pasture by the Great Salt Lake," by Olive Thorne Miller; "Tao," by William Davies; "Two Strings to His Bow," by Walter Mitchell; and installments of the two serials, "Philip and His Wife," by Margaret Dohand, and "His Vanished Star," by Chas. Egbert Trudbeck.

The Midwinter Ladies' Home Journal contains an article on the methods of an actress by Adelaide Hilstori; "The Aberdeen Waltzes," by Mrs. Francis J. Moore; "A Valentine Dinner," by Mrs. Burton Kingsland; "My Tabooed Playmate, Adeline Patti," by Katherine B. Foot; and installments of the series of papers on "How Fauntleroy Really Occurred," by Mrs. Burnett; "Pomona," by Steckton; "Literary Passions," by Howells, and the "Brownies," by Palmer Cox. Mrs. Elizabeth Robinson Scovill has a very timely article on "Care in Infectious Diseases."

There is some little discussion going on in pharmaceutical circles regarding the correctness of color vision on the part of pharmacists, and the desirability of instituting tests which will determine the ability of those who practice the profession to distinguish one color from another. While the question may not possess sufficient significance to bring it under legal notice, as is the case with enactments which require perfect color sense on the part of those engaged in land and water transportation, military service, etc., yet it is one which may concern the safety of the public in more ways than one. Perhaps one of the most important steps in chemical work is the application of tests and the identification of results, and one cannot help noting, in glancing over any work devoted to this subject, the great dependence which is placed upon color reactions. The identification of the primary colors and their combinations and variations requires the keenest sense of discrimination, and chemical testing affords an instance where this sense is required in its greatest perfection. It is not believed that the percentage of people afflicted with color blindness is very great, and it is an undecided question whether this defect is always congenital or may come into existence gradually. It is also quite improbable that anyone desiring to enter the drug business could make much progress without visual errors of this kind being detected. If it is possible that such a defect is one which may be acquired gradually, the danger which menaces the public by reason of the errors which might be made by the dispenser who relies upon the color of a drug nearly as much as he does upon the label, is one which possibly calls for the institution of restrictive measures. However, with our present data the matter is one of a speculative nature, and its importance can only be determined after considerable investigation.

PLAYING CARDS.

You can obtain a pack of best quality playing cards by sending fifteen cents in postage to F. S. Eastis, Gen'l Pass. Agt., C. B. & Q. R. Co., Chicago, Ill.



DISTEMPER CURE.

Spencer, Toxica Co., N. Y.

Dear Sir: In answer to yours would say that I have sold your "Liquid Heave Cure" for several years. It has given general satisfaction. In fact it has become a necessity with our liverymen and all others who have used it.

Yours truly,

C. J. FISHER, Druggist.

THE WORLD'S FAIR FOR SALE.

LOOK AT IT! The Michigan Central has arranged with one of the best publishing houses in the United States for a beautifully printed series of World's Fair pictures, to be known as the Michigan Central Portfolio of Photographs of the World's Fair.

The original photographs would cost not less than a dollar apiece, but the Michigan Central enables you to get 16 pictures for 10 cents.

It's the finest. It's the most complete.

It's the best. It cannot be beaten.

If you saw the World's Fair, you want it as a perpetual souvenir of a memorable visit.

If you didn't get there you want this to see what you missed, and to fill your mind with the beauty and glory of the White City.

Call on the nearest Michigan Central ticket agent, and he will furnish you with the first part and tell you more about it, or write to O. W. Ruggles, G. P. & T. A., Chicago, enclosing 10 cts. for the collection.

Dr. Earl S. Sloan Co., Boston, succeeds Dr. Earl S. Sloan in the manufacture of proprietary medicines.

The Lila Flower Co., Bangor, Me., is a new firm formed for the manufacture of proprietary medicines.

"Yes," said the boy, as his mother took a bigger pull than usual at the whiskey bottle, "Mumm's Extra Dry!"—Life.

R. Hillier's Sons Co., New York, will move to 35 William street on or about May 1.

A man called at a drug store the other day and asked for a particular kind of soap.

"Scented or unscented?" asked the drug clerk.

"I'll take it wld me," said the man.

PENCILS FOR CHILBLAIN AND CHAPPED HANDS.—Melt thirty parts paraffine, gradually add thirty parts paraffine oil, allow the mixture to partially cool, dissolve in it one part iodine, stir in two parts tannin, and, lastly, add three parts alcohol, and when sufficiently cool, pour into moulds.

THE MARKETS.

The fluctuations noted in this market report are those affecting goods in original packages and jobbing lots. A complete price list, showing quotations as made by jobbers to retailers, will be found upon another page under the head of "Prices Current."

ADVANCED.—Opium, morphine, quinine, cocaine, Mexican sarsaparilla, nitrate of soda, chloral hydrate, gambler, German quinine seed, cubeba, Malaga olive oil, linseed oil.

DECLINED.—Wood alcohol, citric acid, boric acid, broken cuttle bone, nitrate of silver, mercurials, cream tartar, thymol.

New York, February 10, 1894.

There has been a further increase in the general volume of business during the past two weeks, and the improved demand, together with other influences, has stimulated a hardening tendency to values of a large number of articles. In fact the market may be characterized as fairly buoyant, and while the movement is almost exclusively confined to moderate quantities, dealers are apparently well content with the general condition of affairs. The absence of speculative interest is considered favorable, and with the law of supply and demand as the principal factor in governing fluctuations, there is nothing in the future outlook to occasion anxiety on the part of consumers. There is still a disposition to keep within the requirements of the present, or at least not to purchase far in excess of near-by necessities, consequently individual transactions of magnitude are exceptional. The cautious policy of buyers, however, can hardly be objectionable, but in view of the general upward tendency of the market, it behooves those interested to carefully consider future probabilities. The action of the appraisers' department regarding recent importations of asafoetida has practically prevented dealers from replenishing their stocks, and it is generally believed that supplies will soon be exhausted. During the past few days the same department is said to have rendered unfair decisions regarding Ipecacuanha, and it is proposed to have the action of the appraiser discussed at the next regular meeting of the Drug Section of the Board of Trade.

OPIMUM.—There has been a decided change in this product since our last report. The market has been active, excited and higher. Sales are reported of fully 20 cases, mainly for manufacturing purposes, and values have been advanced to \$3 and \$3.25. Should the proposed new tariff bill become a law the duty of \$1 per pound will undoubtedly be one of the features.

POWDERED OPIMUM.—Has advanced in proportion to the improvement in the gum, values are stronger and the range is \$3.50 to \$3.75 as to test and quantity.

QUININE.—Has been moving freely into channels of consumption, and an unusually large volume of business has been transacted, but during the past few days the demand has fallen off somewhat and a comparatively quiet feeling has prevailed. The lull in trade is only natural, as a general advance in values was anticipated and buyers were anxious to secure supplies previous to its occurrence. As a result they have fairly liberal stocks on hand, and are not disposed to increase their holdings. The anticipated advance

was made on the 1st inst. when foreign manufacturers notified their agents here to mark up prices $\frac{1}{2}$ cents per ounce, making the bulk value 25 cents. American makers on the same date advanced their quotations to the basis of $\frac{2}{3}$ cents for bulk. The tone of the market continues strong and it is believed that a further enhancement of values is contemplated.

CINCHONIDIA—Is stronger in sympathy with quinine and increased activity is noted in the demand.

MORPHINE—The upward movement in opium has influenced an advance of 15 cents per ounce on the part of the leading manufacturers, but the market has an unsettled appearance and some holders are disposed to grant concessions.

GRAIN ALCOHOL—Is unchanged in price and a fair business is reported at the old range of \$2.24 to \$2.28, according to quantity.

WOOD ALCOHOL—Is lower owing to keen competition between the combination and outside producers, and a general decline of 10 cents per gallon is noted on all grades. The demand for high test continues to improve.

ERGOT—Is firmer, particularly the better qualities, which are in better demand from the consuming trade, and stocks are steadily shrinking. Foreign markets are also reported stronger.

COCAINE—There have been two advances by manufacturers since our last report and current quotations are based on \$5.90 for eights.

CACAO BUTTER—Supplies continue light and the stock of 12-pound boxes is steadily being reduced. As a consequence values show a hardening tendency, but former quotations will still be accepted for limited quantities.

BLEACHING POWDER—Is in moderate request for consumption, and the better descriptions command full previous prices.

OXALIC ACID—Is ruling steady in price and the movement in a jobbing way is satisfactory to dealers.

CHLORATE OF POTASH—Is slightly unsettled owing to pressure to realize on the part of sellers, and fractional concessions are obtainable on fair-sized parcels.

ARSENIC—A stronger market is noted for both white and Saxony red, and the advance is $\frac{1}{4}$ cent on the former and $\frac{1}{2}$ on the latter. Holders of red are limiting their sales not to exceed 10-keg parcels.

MEXICAN SARSAPARILLA—Is firmer with stocks, closely concentrated and values are about $\frac{1}{2}$ cent per pound higher.

QUICKSILVER—Continues in fair consuming request with prices steady at all distributing points.

CREAM OF TARTAR—Remains quiet under a light current demand, and manufacturers adhere to old quotations.

TARTARIC ACID—Is unsettled and slightly easier owing to efforts to close out the stock of a manufacturer who recently failed.

CASTOR OIL—Jobbing orders are absorbing a fair amount of stock, but the market is without new feature and former prices are still current.

MANNA—All varieties are without important change in quotations and business is limited to small jobbing transactions.

COD LIVER OIL—Is unusually active, and business in the aggregate reaches liberal proportions, with sellers firm in their views regarding values.

BALSAMS—Are all ruling steady under a good consuming demand, but no new features have developed, and values show no change of consequence.

CAMPHOR—Manufacturers adhere to old quotations and report business of average volume.

ESSENTIAL OILS—Leading descriptions continue to move freely in small parcels, the undertone of the general market is fairly steady, and there are no new features calling for special mention.

RHUBARB—All varieties of whole root and cuts are in active request with values showing increasing firmness.

NITRATE OF SODA—Is firmer with values about $\frac{1}{4}$ cents per pound higher.

TONKA BEANS—Continue firm with holders of strictly prime Angostura indifferent sellers.

VANILLA BEANS—All grades are receiving a fair degree of jobbing attention, and the values realized are satisfactory to dealers.

CHLORAL HYDRATE—Has been advanced 15 cents per pound.

GAMBIER—Is higher, and the market has a decidedly firm tone.

CITRIC ACID—Has been reduced 1 cent per pound by manufacturers, and foreign shows a corresponding decline.

BENZOIC ACID—German is stronger under reduced supplies, and a fair inquiry from consumers.

QUINCE SEED—German is very scarce, and holders have advanced prices about 5 cents per pound.

CHICLE—Is obtainable at former figures, but the market is unsettled and irregular, with dealers apparently uncertain regarding the future outlook.

CUTTLE FISH BONE—Has been moving rather more freely with values steady for all varieties except broken, which is about 1 cent per pound lower.

MENTHOL—Continues scarce and wanted, with holders of the exceedingly limited stock exacting extreme prices.

NITRATE OF SILVER—Manufacturers have made a reduction of $\frac{1}{2}$ cents per ounce in their quotations.

Product of Smoke.—Andrew J. Chase, Boston, Mass.

511,303—Piperazin.—Wilhelm Majert, Gruenau, and Albrecht Schmidt, Berlin, assignors to the Chemische Fabrik auf Actien (vormals E. Schering, Berlin, Germany).

511,330—Process of and Apparatus for Manufacturing Ozone Gas.—Ernst Fabrig, Marseilles, Ill.

511,333—Process of Making Caramel From Distillery Refuse.—Jullus Mosler, Rixdorf, Germany.

511,150—Process for the Manufacture of Paramidophenol Sulphonic Acid.—Arthur A. Noyes and Arthur A. Clement, Boston, Mass.

511,653—Blue Dye.—Gustav Schultz, Berlin, Germany, assignor to the Actien-Gesellschaft fur Anilin Fabrikation, same place.

511,628—Blue-Black Azo Dye.—Theodore Diehl and Max Moeller, Berlin, Germany, assignors to the Actien-Gesellschaft fur Anilin Fabrikation, same place.

511,708—Production of Amido-Naphthol Disulfonic Acid. Max Moeller, Berlin, Germany, assignor to the Actien-Gesellschaft fur Anilin Fabrikation, same place.

511,755—Triturating and Emulsifying Machine.—William E. Cowen, Guelph, Canada.

511,782—Disinfectant.—Charles D. Lippincott, Denver, Col.

511,898—Naphthol Trisulfonic-Acid Monamid.—Hans Kusel, Hochst-on-the-Main, Germany, assignor to the Farberwerke, vormals Meister, Lucius & Brunig, same place.

511,901—Tetraamitro Anthrachryson.—Heinrich Laubmann, Hochst-on-the-Main, German, assignor to the Farberwerke, vormals Meister, Lucius & Brunig, same place.

511,903—Apparatus for and Process of Making Carbonated Beverages.—John Macksey and William Helmer, Boston, Mass., assignors to the American Soda Fountain Company, same place.

512,065—Box for Tooth Powder.—Warren A. Spalding, New Haven, Ct.

512,070—Apparatus for Charging Liquids With Carbonic Acid.—Jacob F. Theurer, Milwaukee, Wis., assignor to the Universal Carbonating Company, New Jersey.

512,116—Crimson Azo Dye.—Richard Kirchhoff, Berlin, Germany, assignor to the Actien-Gesellschaft fur Anilin Fabrikation, same place.

512,167—Blue-Black Dye.—Theodore Diehl, Berlin, Germany, assignor to the Actien-Gesellschaft fur Anilin Fabrikation, same place.

512,493—Blue Dye.—Moritz Ulrich and Johann Bammann, Elberfeld, Germany, assignors to the Farbenfabriken, vormals Fr. Bayer & Co., same place.

512,590—Orthooxyethyl-Alpha Benzoylamido-Quinolone.—Gerhard Nicolaus Vis, Barmen, Germany, assignor to Dahl & Co., same place.

512,705—Stopper for Bottles, Jars, etc.—Philip H. Holmes, Gardner, Me.

512,801—Process of Manufacturing Aluminium.—Willard E. Case, Auburn, N. Y.

512,802—Process of Manufacturing Aluminium.—Willard E. Case, Auburn, N. Y.

512,803—Process of Making Aluminium Compounds.—Willard E. Case, Auburn, N. Y.

512,812—Bottle Protector.

512,874—Vessel for collecting Precipitates.—Horatio N. Fraser, New York, N. Y.

PATENTS,

TRADE-MARKS AND DESIGNS.

From U. S. Patent Office Gazette.

PATENTS.

510,634—Apparatus for Distilling and Concentrating Glycerine and Heavy Oils.—Albert F. Trageser, New York, N. Y.

510,672—Process of Obtaining Sweet Residual Petroleum Products.—Edward G. Brown, Brooklyn; Oswald N. Cammann, New Brighton, and Oliver Wilcox, Brooklyn, N. Y.

510,834—Process of and Apparatus for Dissociating Soluble Salts by Electrolysis.—Henry S. Blackmore, Mount Vernon, N. Y.

510,886—Bottle-Washer.—Frederic G. Littlell, Brooklyn, N. Y.

511,130—Bottle Packing Device.—William Eggers, Alleghany, and Sebastian Mueller, Sharpsburg, Pa.

511,143—Process of Making Sodium Acetate.—William H. Higgin, Bolton, England.

511,288—Apparatus for Producing a Liquid

- 512,983—Apparatus for Dispensing Soda Water.—Adam O'Hara, Chicago, Ill.
- 513,001—Process of making Alkali Salts.—Henry S. Ilackmore, Mount Vernon, N. Y.
- 513,127—Cream-Cooler and Soda Fountain.—Frank W. Merrill, Deering, Me.
- 513,130—Apparatus for the Production of White Lead.—Norman K. Morris and John W. Bailey, Denver, Col.
- 513,153—Inhaler.—William B. Spencer, Chicago, Ill., assignor of one-half to T. W. Knill, same place.
- 513,204—Process of Making Pure Sulfitic Compounds.—Ernst W. R. Schroter, Hamburg, Germany, assignor to Ichthyol Gesellschaft, Cordes, Hermann and Co., same place.
- TRADE MARKS.**
- 23,923—Ointment for Skin Diseases.—The word "Incoline."
- 23,924—Medicinal Mixture for Certain Named Diseases.—Jean Rein Blumenberg, St. Louis, Mo. The word "Heroutine."
- 23,927—Remedies for Diarrhoea and Gouty Rheumatism.—Chemische Fabrik, vormals Hofmann & Schoetensack, Ludwigshafen-on-the-Rhine, Germany. The word "Salacelot."
- 23,928—Remedy for Rheumatism.—Joseph P. Greene, San Antonio, Tex. The compound word "Pao-Lao."
- 23,929—Remedies for Diseases of the Stomach, Spleen, Liver, Lungs, Heart, Spine and Nerves.—Khuised Manekji Tata, Navsari, near Bombay, India.—A tropical scene and the representation of a woman in a classical or Oriental costume, with the right arm outstretched and bearing a bottle in the left hand.
- 23,930—Hougies and Suppositories.—Frederick Wuersten, New York, N. Y. The word "Cicelol."
- 23,931—Remedies for Piles.—Hamilton & Whittin, Chicago, Ill. The word "Pileine."
- 23,932—Medicinal Tablets.—Fernie Tablet Co., St. Louis, Mo. The word "Fernine."
- 23,933—Medicine for the Cure of Liver and Kidney Diseases.—Peter P. Bradt, Worcester, Mass. The words "Blood Wine."
- 23,940—Olive Oil.—Frederic Reiset and Gustavus Waeber, New York, N. Y. The letters "J" and "M."
- 23,946—Water Filters.—John C. Wands, St. Louis, Mo. The words "Water Polisher."
- 23,950—Pills.—Frank J. Cheney, Toledo, Ohio. The words "Hall's Family Pills."
- 23,951—Purgative Tea.—Auguste Slerc, Paris, France. The representation of a rectangular label bearing the figure of a centaur and crossed by a band bearing the words: "Bande de Garantie."
- 23,971—Prepared Foods for Children and Invalids.—The Imperial Granum Company, New Haven, Conn. The representation of an imperial crmine bearing a shield of the stripes and stars partially inclosed by a wreath above which is a half moon, the whole being mounted by a crown.
- 23,977—Perfumed Toilet Preparations.—Lecaron et Fils, Paris, France. The fac simile signature "Gelle Freres."
- 23,978—Chewing Gum.—William R. Betham, Chicago, Ill. The word "Celerene."
- 23,979—Hair Tonic.—Leon Pierre Federmeier, Chicago, Ill. The words "Anti Dandruff Hair Tonic" inclosed with a canopy of drawn curtains.
- 23,980—Borax.—Frank M. Smith, San Francisco, Cal. The representation of a desert scene and a wagon train crossing the same.
- 23,982—Antidotes for Uric Acid Diathesis.—Arthur Stern, New York, N. Y. The word "Uricine."
- 23,982—Medical Compound for Use as a Tonic.—The Tilden Company, New Lebanon, N. Y. The words "Tilden's Beef, Iron and Rye."
- 23,983—Remedies for Constipation and Diseases of the Liver and Kidneys.—The E. A. Butts Company, Washington, D. C., New York, N. Y., and Chicago, Ill. The representation of two roosters and a stone.
- 23,984—Line of Proprietary Medicines.—Alexander P. Sawhill, Allegheny, Pa. The portrait and fac simile signature of Father S. G. Mollinger.
- 23,985—Anodyne and Antipyretics.—Phena Tro Cine Chemical Company, Philadelphia, Pa. The words "Phena Tro Cine."
- 23,986—Blood Purifying Tea, Lintment, Salve and Cough Syrup.—Hermann B. Hackendahl, Milwaukee, Wis. A portrait of the Rev. H. Jansen dressed as a priest.
- 23,987—Bronchial Waters, Troches and Lozenges.—The Stone Medicine Company, Chicago, Ill. A monogram of the letters "X" and "S."
- 23,988—Blood, Liver, Kidney and Stomach Medicine.—Frank A. Stutz, Bucyrus, Ohio. The words, "Dr. White's New Remedy."
- 23,989—Remedy for the Headache.—Notley Claude Young, San Antonio, Tex. The representation of a woman's head and the word "Headicine."
- 23,992—Prepared Meat Juices and Iron.—Frederick Stearns & Co., Detroit, Mich. The word "Hæmoferrum."
- 23,997—Remedies for Rheumatism, Neuralgia and Lumbago.—Sophie Klein, New York, N. Y. The representation of an eagle perched upon a book, sprays of vines surrounding the same, and the abbreviations and words: "Mrs. Ph. Klein's Herb Balsam."
- 23,998—Remedies for Dyspepsia, Indigestion and Diphtheria.—Robert W. Johnson, New Brunswick, N. J., and New York, N. Y. The word "Carapin."
- 23,999—Remedies for Dyspepsia, Indigestion and Diphtheria.—Robert W. Johnson, New Brunswick, N. J., and New York, N. Y. The word "Pinapsin."
- 24,009—Toilet Soap.—Jarmuth Brothers, Chicago, Ill. The word "Jersey Cream."
- 24,011—Disinfectants.—Miller Brothers, New York, N. Y. The word "Microzone."
- 24,012—Remedies for Rheumatism and Similar Complaints.—John Levy, Philadelphia, Pa. The word "Inkerlas."
- 24,013—Remedies for Throat Diseases.—Apoth. Strehler & Co., Munich, Germany. The representation of a heart within a star and the words "Succus" and "Antidiphtherilin."
- 24,014—Cod Liver Oil.—C. C. Kraemer Company, Brooklyn, N. Y. The word "Ironized."
- 24,015—Preparation of Oils for Chronic, Malignant and Lung Diseases.—Drs. Reynolds & Reynolds, San Antonio and Dallas, Tex. The words "Oil Cure" and the representations of three men arranged in triangular form.
- 24,016—Remedies for Malarial Diseases.—Paris Medicine Company, Paris, Tenn.
- The words "Fibriline or Tasteless Syrup of Quinine."
- 24,017—Certain Named Medical Compounds.—Samuel Morris, Cardiff, England. The word "Dilgent."
- 24,018—Tonic.—Charles F. J. Pettit Do Langle, Lynn and Boston, Mass. The words "Parialino Aphro Tonic" and the representation of a man kneeling before a woman.
- 24,017—Medicinal Plasters.—William H. Gannett, Augusta, Me. The representation of the symbolical figure of a giant holding aloft in his hands a globe on which is represented a plaster.
- 24,018—Acetic Acid.—Couts & Sons, Toronto, Canada. The word "Acetoura."
- 24,019—Preparation of Magnesia.—The Charles H. Phillips Chemical Company, New York, N. Y. The words "Milk of Magnesia."
- 24,020—Antidotes for Poison or Snake Bites.—Levi S. B. Slusser, Mt. Olive, Cal. The representation of an Indian woman in a field of snake wood, in the act of plucking stems, and having a pack on her back supported by a band passing around her forehead.
- 24,021—Refined Petroleum for Internal and External Remedies for Disease.—Angier Chemical Company, Boston, Mass. The representation of a Greek cross inclosed by two concentric circles.
- 24,022—Remedy for Diseases of the Blood.—Lewis J. Bell, Pike, Ind. The letters "C. U. C."
- 24,023—Remedy for Diseases of the Blood and Nervous System.—Samuel A. Richmond, Tuscola, Ill. The word "Epileptine."
- 24,024—Tonic, Blood Purifier and Fever Preventive.—Harvey & Co., Fort Huron, Mich. The words "Harvey's Dandelion Compound" on a black ground on which also appears a light scroll-like panel bearing the pictorial representation of a dandelion in flower and the words "Dandelion Compound," the latter words being in red.
- 24,025—Remedy for Rheumatism.—Frank Sherman, Shenandoah, Iowa. The representation of a rampant lion resting his fore paws upon a standing bottle.
- 24,028—Root Beer.—The Charles E. Hires Company, Philadelphia, Pa. The words "Hires' Root Beer."
- 24,026—Chewing Gum.—J. Hungerford Smith Company, Rochester, N. Y. The words "True Fruit."
- 24,027—Toilet Powder.—Ernest D. Miltner, Savannah, Ga. The words "Infants' Friend."
- 24,029—Ink, Mucilage and Sealing Wax.—Pomeroy Bros., Newark, N. J. The representation of a lion rampant holding an apple.
- 24,032—Extract of Sarsaparilla.—Henry W. Tate, Fremont, Nebr. The representation of an anchor and the words "Hope for All," arranged with the word "Hope" on the anchor and the words "For All" on either side thereof.
- 24,033—Medicinal Agents for Use in Nervous Diseases as a Febrifuge and Soporific.—The firm of E. Merck, Darmstadt, Germany. The word "Thermodin."
- 24,034—Medicinal Agents for Use in Urinary Diseases.—The firm of E. Merck, Darmstadt, Germany. The word "Uroperlin."
- 24,035—Remedy for Coughs, Colds and all Diseases of the Throat and Lungs.—Percy G. McComas, Washington, D. C. The word "Emulsolatum."



FREDERICK BELDING POWER.

PROFESSOR POWER is now in the forty-first year of his age. An American by birth and parentage, almost a German by study and assimilation, he has devoted himself to pharmacy since the age of 14. After that early age, for the first nine or ten years he worked in dispensing pharmacy: five years in his native town of Hudson, N. Y., then for a year in Chicago, and then nearly four years in Philadelphia and its vicinity, including a year and a half as assistant in the pharmacy of Professor Edward Parrish, of honored memory. His preparatory schooling was taken in Hudson Academy, mainly before he entered the drug store. While employed in Philadelphia he attended the Philadelphia College of Pharmacy and graduated therefrom in 1874. Two years after he went to Europe, studied over four years in German universities, chiefly the University of Strassburg, in which he received the degree of Doctor of Philosophy in 1880. At Strassburg he took a wide range of scientific studies, mostly by laboratory methods, working his theses under Professor Flueckiger, to whom he was assistant for a year. Flueckiger and Hanbury's Pharmacographia had appeared in England a year or two before Mr. Power took up his residence in Strassburg. After graduation, and after

visiting the resources of education in several countries, Dr. Power returned to the United States, and, for a time, took charge of analytical chemistry in the Philadelphia College of Pharmacy. About this time he joined Dr. F. Hoffmann, of New York in re-writing and extending the well-known work "Examination of Medicinal Chemicals." In 1883 Dr. Power was called to take charge of the School of Pharmacy of Wisconsin University, then being established at Madison, Wis. To this work, as professor of pharmacy and of materia medica, with much labor in the organization of the School, he devoted himself for nine years. In Wisconsin University he has left warm friends, and a record of sterling service. A year after his resignation at Madison he was invited to come back and give the commencement address in the School of Pharmacy there. In that address he sets forth in vigorous terms "The Mission of Pharmaceutical Schools" in the United States (Phar. Rund., II, 28). Pointing to the example of the School of Pharmacy of the University of Michigan, he made an unanswerable plea for laboratory methods, with full college years, and the student's entire time in the college work. The address was so far appreciated by Wisconsin University that it was printed in its An-

nouncement of the School of Pharmacy for the following year. In 1882 Professor Power left Madison to become director of the manufacturing laboratories of Messrs. Fritzsche Brothers, of New York (Schimmel & Co., Leipzig), where he is still engaged. In the several branches of pharmaceutical service and study, to which Professor Power has devoted himself, he has aimed at the best, sparing no industry, and has achieved excellence. His example is conspicuous among many proofs that there is, in the hearts of young drug clerks of the United States, an undaunted determination to have that knowledge which is real success in pharmacy. Professor Power's published contributions, book translations, researches, etc., appear in the literature of every year since 1874. A full index of them all is given in Beber's Gallerie hervorragender Therapeutiker und Pharmakognosten, Geneva, 1893. It should by no means be omitted that Professor Power was a member of the Committee of Revision of the U. S. Pharmacopoeia of 1880, in which he revised the text for volatile oils. He is a member of the German Chemical Society, and a fellow of the American Association for Advancement of Science.

A. B. P.

ENTERED AT THE DETROIT O. A. RECORD-CLASS MATTER

ESTABLISHED 1887.

THE PHARMACEUTICAL ERA.

SEMI-MONTHLY.

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advertising page 31.

EDITORIAL.

AMERICAN AND ENGLISH PHARMACY.

There are two contributions in this issue to the controversy occasioned by the publication of Mr. Martin's paper on American pharmacy. One is from the dean of a college of pharmacy, extracts from whose announcement were made for purposes of criticism by Mr. Martin. The writer is entitled to an opportunity to refute conclusions he believes incorrect, though the discussion comes very close to being of a personal nature. The writer of the other contribution, printed as correspondence, succinctly describes the apprenticeship system in force in England.

DISPENSING ANTISEPTIC TABLETS.

A number of years ago there were introduced various so-called, antiseptic tablets for the preparation of lotions for the throat and nasal cavity. They met with considerable favor and became popular with the general public. They were efficient for the purposes intended, and being composed of comparatively harmless substances, their misapplication was hardly of serious import. But the recent introduction of antiseptic tablets for the convenience of the surgeon in making antiseptic solutions, may lead to fatal accidents should they be used as were the early forms of antiseptic tablets. It is the duty of the pharmacist in dispensing antiseptic tablets to ascertain the purpose for which they are to be used, and care should be exercised by the physician in prescribing, that the druggist may know just what tablet is desired. Attention to this matter may be the means of averting serious consequences, and, at the same time, save the reputation of both the physician and druggist. Remember, many of the antiseptic tablets contain corrosive sublimate (with or without an acid), and are dangerous when used in concentrated solutions.

DRUG STORE MANAGEMENT.

From the fact that few believe that the stage of perfection has been reached, the question of profitable and satisfactory drug store management is one which will probably always be of much interest to all engaged in the trade. For this reason it is believed that occasional reviews of recent progress, and the publication of suggestions tending to improvement over conventional methods of doing business will be of service, and be received with a due amount of appreciation. It is believed that an inquiry of this sort can be given greater prestige if it is instituted in a formal way and interest concentrated upon it for a certain length of time. With this object in view it is the intention to devote a definite amount of space each issue to the business aspects of pharmacy

treating the different phases of the business in their natural sequence as far as possible. In this issue will be found articles dealing with some of the first steps, including the location and purchase of a stock and the pointing out of the evils which attend the purchase of goods upon the installment plan. As circumstances alter cases it is perhaps impossible to discuss such subjects in an authoritative manner, yet the enunciation of fundamental principles is often productive of much good, and we ask the hearty cooperation of our readers, who are now hiding bright lights under bushels, in making this inquiry a profitable one.

PATENT MEDICINES AND LEGISLATION.

The bill referred to in our Boston newsletter is of a nature calculated to rouse opposition from patent medicine men, who always seem to consider any attempt at the regulation of the sale of secret preparations an impertinent interference with their personal and business rights. This bill aims to protect the public against injurious and dangerous remedies. Surely such aim is one of the high duties of legislation, and it is high time our lawmakers awoke to their responsibilities in this regard. The patent medicine men may object to the methods of ascertaining whether their preparations be dangerous, but they have no right to object to the principle that the people should be protected against possible injury and fraud. The manufacturer of a good article would find in the proposed regulations the best kind of protection. The formula he submits is not to be disclosed, unless found false; and he thus finds irresponsible and fraudulent competition removed. If his goods are not true to pretensions the public are entitled to the knowledge. If the patent medicine is a fraud it should be exposed. The secrecy of the proprietary medicine is one of its chief values and so long as this secrecy is maintained (as this bill provides for all reputable preparations) the sensibilities of the proprietor should be satisfied. It would be in line with nineteenth century advancement for the proprietors of these goods to encourage all efforts on the part of legislative bodies to enact such laws as will tend to elevate the business and purify the catalogue of patent medicines of its many useless and often harmful preparations.

INTERCHANGE OF CERTIFICATES.

It has been some time since we expressed at any length our opinions on this subject, and it would seem that there should be but one opinion regarding it, but the question hobs up serenely so frequently that it is evident there are nearly as many views and beliefs as there are minds considering it.

Ideally, interchange of certificates of registration between boards of pharmacy is all right, for if a man is a competent pharmacist in one state he is equally competent in another. But, practically, interstate registration under existing conditions is bad, because of lack of uniformity in the requirements insisted upon by the boards and the wide variation of standard of fitness applied by them. This is the whole thing in a nutshell. One board may certify that a candidate is a competent pharmacist while another may find him woefully deficient. Or the converse may be true, the rejected of

one board become the accepted of another. Such cases are continually coming to notice, and until there be uniformity of standard, there is no justice in the custom of interstate registration. Such interchange is now accorded by several boards, as a matter of courtesy, but we sincerely believe this courtesy is an unwise policy, a practice wrong in theory and in application. And it will always be wrong until the requirements of all boards of pharmacy are on the same plane; then a man certified as qualified in one state will and should have the right to demand registration without examination in any other state.

Pertinent to this discussion must be considered the acceptance of college diplomas in lieu of examination by the board. Diplomas should not be recognized, for even greater differences exist between colleges than between boards. When the colleges impart the same quantity and quality of instruction, and the boards require the same proficiency, then should it be decided whether to recognize the diploma and to grant certificates of registration good in any state. But to bring about the desired result, the college curriculum must be of a nature to insure the true pharmaceutical fitness of the graduate, and the board standard must be of equally high nature. As a rule, the ones who are now clamoring for interstate registration and diploma recognition are those who have most reason to fear an examination. The man who knows is not afraid or unwilling to demonstrate that he is qualified.

FAULTY TEACHING.

A member of the faculty of a southern school of pharmacy, in a recent lecture on the subject "Incompatibility," made some rather astonishing statements. He said that calomel was incompatible with hydrochloric acid, for "the acid nearly always containing free chlorine, the mercurous chloride takes up another atom of chlorine from the acid, and is converted into mercuric chloride or corrosive sublimate."

Regarding the incompatibility between iodides and spirit of nitrous ether, he says: "The discoloration which is produced is due to free iodine, resulting from the decomposition of the potassium iodide by acetic acid contained in the nitrous ether as a product of its decomposition under the influence of light and air."

Is it any wonder that some college graduates do not acquit themselves with credit at board of pharmacy examinations? A little correction of the above statements seems necessary.

Ordinarily, calomel shows no change when suspended in hydrochloric acid, weak or strong, but if such a mixture be heated or allowed to stand a considerable period, decomposition takes place. This change consists of a darkening of the calomel, evidence of reduction of the mercury in part to free or metallic mercury, and an oxidation in part to mercuric chloride. This change may be effected by boiling in simple aqueous mixture, free acid not being necessary. The statement that it is due to free chlorine in the hydrochloric acid is absurd, a good quality of acid contains no free chlorine. One method of manufacture of calomel consists in precipitation of a solution of a mercurous salt by hydrochloric acid (cold); in fact the insolubility of

mercurous chloride constitutes a principal analytical test for mercurous mercury.

The second statement is equally misleading. The decomposition of potassium iodide by spirit of nitrous ether is but a common illustration of the incompatibility of iodides and nitrates. This oxidation and reduction change, whereby the iodide is changed to free iodine and the nitrite to N O (or other nitrogen oxide) is relied upon for quantitative test for the estimation of the quantity of nitrous ether (ethyl nitrite), in one of the methods described in the pharmacopœia. The change is facilitated by the presence of free acid (acetic, perhaps), but is not dependent upon or occasioned by it.

A certain professor in an eastern college of pharmacy used to tell his students that bicarbonate of potash was "commonly called pearlsh."

Please be a little more accurate in your statements, ye gentlemen of the faculties of colleges, if you expect to demonstrate that American pharmacy is undeserving of the occasional reflections cast upon it by our transatlantic brethren.

EXAMINATION QUESTIONS.

We are greatly encouraged by the increasing interest manifested in the series of examination questions which are appearing in these pages. This interest indicates very plainly that druggists and their clerks are by no means unresponsive and slow to take advantage of opportunities for self-examination and self-instruction. The present seems to be pre-eminently an age of progress in matters educational in all professions in the United States, and this feeling and stimulus are existent in pharmacy in as high a degree as in other callings. There is a demand for greater proficiency, there is more expected of the professional man than in the earlier days of the country; legislative restrictions are being drawn closer and closer, and with the passing away of the old ideas the new are forging to the front. Pharmaceutical education in this country has been in a more or less chaotic condition, from which it is, however, emerging with very satisfactory rapidity. The young man is no longer content to serve an apprenticeship, picking up what little information he can at odd times, finally to take upon himself the management of a drug store, trusting to a beneficent Providence to protect him from mischance and the results of possible and probable error. But aside from the legal regulations with which he must comply, he finds the spirit of progress abroad in his profession, and he must, through systematic application to study and work, qualify himself to meet his competitors on equal ground. The drug clerk of to-day is anxious to study, but he often finds it hard to carry on his study to the best advantage and in the proper direction. These questions are not intended to be anything other than what they purport to be, examination questions to test the quality of the student's attainments. They are not to take the place of systematic study at college, or under a preceptor, or by one's self; nor are they intended to coach the student for board of pharmacy examinations, but simply to give him a means of examining into the value of what he has already attained, and to indicate to him where he is deficient and where strong.

We have been surprised and gratified at the general high excellence of the replies so far received, and from the suggestions as to the continuation of the feature we have gained ideas which, put into operation, cannot but prove beneficial. The support so far received is more than adequate to insure the continuation of this feature, and undoubtedly the increasing accumulating interest which succeeding series will draw forth will provide still farther stimulus to the extension of the work.

Answers to the first series of questions will be published in the April 1st Era, and we would request that all replies be in our hands prior to March 15th, that the necessary compilation and comparisons may not be delayed. It is believed best to republish each series of questions until they have been answered in print. We shall be glad to receive suggestions looking toward the increased efficiency of this feature of Examination Questions.

MORPHINE AND POTASSIUM PERMANGANATE.

A certain Dr. William Moor, of New York, has recently gained considerable cheap notoriety by swallowing a poisonous dose of morphine, following it immediately with a solution of potassium permanganate as an antidote. As he experienced no ill-effects from the experiments, he has been joined by the newspapers in claiming that permanganate of potassium is sure to prove of immense service in cases of morphine poisoning, and that it will undoubtedly be employed in the treatment of the morphine habit. This is but another sample of newspaper science, but one that may do more than the usual amount of harm. Were the newspapers to be believed, Dr. Moor should be looked upon as a great benefactor of the human race and his discovery an inestimable boon to mankind. But in truth, there's nothing in it. Potassium permanganate is one of the most easily decomposable of substances, and if it is to destroy the toxic power of morphine it must be administered almost simultaneously with it. Dr. Moor says it will decompose a morphine salt several hundred times quicker than it will decompose albumen, and that it exercises this power of selection in the stomach. Perhaps so, but its action on albumen is so rapid that a grain or two of morphine would have to select it very promptly to effect decomposition. The gases and juices of the stomach and the food which may be present would have a rather discouraging effect upon poor permanganate in its search for morphine, its affinity. And suppose it didn't find morphine, what if it should attack the walls of the stomach in its exasperation of disappointment? We confess we are out and out skeptics in this matter. If the permanganate gets a chance at the morphine before anything else is offered it, both would emerge from the fray in a very battered condition.

But give morphine a few minutes' start and let it hide itself in the circulation, and permanganate wouldn't have a ghost of a show. The proposition to administer it hypodermatically as an antidote in morphine poisoning is ridiculous. The blood itself would rebel against such intrusion and would annihilate permanganate in short order. Dr. Moor tells the reporter that in case of poisoning with opium preparations other than morphine salts, the antidote should be acidulated with vinegar. Text-books and experience

show that acetic acid especially decomposes permanganate, under proper conditions, and it is reasonable to expect decomposition here. We do not belittle the value of permanganate as a morphine antidote in cases where it can get a fair crack at the morphine, but in ninety-nine instances in a hundred its administration would be worse than useless, for the morphine would be well beyond its influence, and there would be grave reason to fear its corrosive action on the stomach itself. It is unfortunate that the matter has been brought to public attention, for even were the application of permanganate proven a valuable discovery, as claimed, this use of it could be of practical service only in the hands of the well-qualified physician, and is not to be entrusted to the layman.

ILLINOIS BOARD'S INTERPRETATION OF THE PHARMACY LAW.

In the Illinois pharmacy law occurs the provision that nothing in the act "shall apply to nor in any manner interfere with the business of any physician, or prevent him from supplying to his patients such articles as may seem to him proper, nor with the making or vending of patent or proprietary medicines, or medicines placed in sealed packages, with the names of the contents and of the pharmacist or physician by whom prepared or compounded, nor with the sale of the usual domestic remedies by retail dealers, nor with the exclusively wholesale business of any dealers."

This section has received varying interpretations, which fact has caused the state board of pharmacy to promulgate the following definition:

Coppers, sulphur, saltpetre, rosin, glauber salt, turpentine, to be sold as stock remedies only.

Water of ammonia, sal soda, soda ash, boxes for washing and soap-making purposes only.

Alum, ammonium carbonate, sodium bicarbonate, cream of tartar, for domestic use only (not medicinal).

Castor oil, for lubricating purposes.

In further explanation the board says: The sale of ordinary drugs and medicines by other than a registered pharmacist, is provided for in section 12, Pharmacy Law (quoted above). Such articles as quinine, epsom salts, castor oil, paregoric, spts. nitre, sulphur, saltpetre, and all other ordinary articles of drugs or medicines (and poisons) used for medicinal purposes may be sold by general stores, if put up in sealed packages and properly labeled by a registered pharmacist of Illinois. (The label should have the name of the Pharmacist and the words "Registered Pharmacist of Illinois," certificate No. , with proper directions for use thereon.) The sale of these articles put up in unobscured packages or manufacturers nor R. P.'s in Illinois is not legal under the Pharmacy Law.

The sale of patent medicines is prohibited by the Pharmacy Law, but this does not include articles known as pharmaceutical preparations. The Supreme Court has decided that quinine is not a domestic remedy, and the Circuit Courts have decided time and again that the articles enumerated above are not domestic remedies. The words "Usual Domestic Remedies" in the Pharmacy Law, taken in connection with the proviso in the same section of the law for the sale of medicines by others than registered pharmacists for medicinal use, shows conclusively the distinction made by the law between drugs and medicines for medicinal use, and those for domestic use, making a special distinction between domestic and medicinal. It is clearly the intention of the law, and the board so defines its provision.

With the exception of a single sentence in the board's definition, its interpretation of the law seems satisfactory. This

exception is the statement that the sale of patent medicines is prohibited by the law. We fail to see how this construction can be put upon that paragraph of the law (sec. 12), which definitely provides that nothing in the act shall prevent the making and vending of patent or proprietary medicines. We are inclined to think that in the circulars issued by the board the word "not" has been unintentionally omitted, and the clause should read "The sale of patent medicines is not prohibited, etc." One objection urged against all our pharmacy laws has been that they make an exception in favor of patent medicines, allowing their sale by anyone, and we do not understand that the Illinois differs in this respect. It is important that the error (if it be one) in the board's circular be corrected.

THE WORK OF THE INTERSTATE LEAGUE.

A full report of the meeting of the Interstate Retail Druggists' League, held in New York the early part of last month, was presented in our last issue. The drug trade has read this report with much interest and with the natural desire to learn what the League has done and is doing for the protection of the retail trade in the sale of proprietary preparations. Aside from the usual routine business, the principal action taken was to suggest a modification of the Detroit plan, by which modification it is proposed to restrict the sale of these goods by the proprietors to "wholesale druggists" rather than to "wholesale dealers." This demand on the part of the League is one which say will render the entire plan inoperative, from the fact that the manufacturers will not consent to adopt the proposed change. These proprietors claim that a large share of their products are distributed through the agency of dealers other than druggists, and there are some medicines which are nearly entirely so distributed. It is very desirable to restrict the sale of patent medicines only to wholesale druggists, but we must not lose sight of the fact that the idea of the plan is primarily to protect the trade against cut rates, and the proprietors who adopt it agree that whoever their wholesale customers are, whether druggists or general dealers, cutting of prices and selling to cutters will not be allowed. This it seems is what the drug trade has a right to ask and what it has been asking, and the League through its representatives at the last meeting of the N. W. D. A. expressed itself in favor of the plan as proposed and now makes the very decided change of substituting "wholesale druggists" for "wholesale dealers." We all have very strong desire to see the League succeed in its avowed purpose of advancing the material interests of the retail drug trade, and we believe that the majority of jobbers and proprietors see the necessity, even from selfish motives alone, of protecting the retailer in his profits on these goods. Various plans, of very radical characteristics, have from time to time been proposed and attempts made to enforce them, but from the fact that they were so very radical and implied such great changes in the manner of conducting trade and necessitated a very complete detective system to make them operative, they have one by one sunk into oblivion. The Detroit Plan is, as it has been well termed, a compromise measure, not wholly satis-

factory to either side in all respects, but it is well worth a trial. It is impossible to state whether the League's action will prove a bar to the enforcement of the Detroit Plan or whether it will result in good, but the fact remains that the change demanded is a very important one indeed, inasmuch as it restricts the proprietor's list to a much smaller number of customers and he may see fit to refuse any support whatever to it.

TEST YOUR PHARMACEUTICALS.

The custom of some pharmaceutical manufacturing establishments of giving the same discounts to retailers and jobbers has brought about a condition of affairs not altogether satisfactory. The manufacturer can give, say 40 per cent discount to the retailer, while the jobber can give but 25 per cent if he is to get any return for handling the goods, nor can the jobber retail the articles, for such a course promptly brings him into trouble with his retail trade. Farther than this, the practice is detrimental to the retailer's interests in that these goods quickly find their way into the cutters' hands and the retailer sees his trade in them leaving him. All this has led to the establishment by certain jobbing drug houses of the manufacture of pharmaceuticals of their own on which they can get all the profit. We find, therefore, upon the market preparations of all characters, of widely varying degrees of quality, and the business in these goods appears to be characterized by those unpleasant features which attended the memorable encounter of the Kilkenny cats. Just what will result from Mr. Weller's resolution, presented to the N. W. D. A., to the effect that something be done to establish uniform list prices and for the correction of the abuses outlined, it is impossible to predict, but that a change is desirable cannot be denied. When a druggist finds before him a dozen lines of fluid extracts or other pharmaceuticals, each claiming to be official, but evidently differing greatly, it surely is wisdom on his part to inquire pretty closely into the relative values of the articles.

PHYSICIANS AND PATENT MEDICINES.

Medical journals and physicians quite generally accuse druggists of catering to the patent medicine trade and assign this as one of the causes of the strained relations which often exist between physicians and pharmacists. While the pharmacist is culpable, as charged, it is nevertheless true that the physician himself is equally or more responsible for the trade in patent medicines which he hypocritically deplores; and farther than this, we think that it is true that druggists as a class are more honest in their efforts to bring about an improved condition of affairs than are the physicians. We have seen physicians' prescriptions which called for full packages of well-known proprietary medicines, and a large proportion of all prescriptions designate some particular make or some particular brand which in many cases is just as truly a secret preparation as are what are more generally known as patent medicines. There are certain lines of so-called pharmaceutical preparations of which nothing is known save what is found upon their labels, and which is very often no true criterion of the value and true nature of the contents

of the package. If the medical profession, as a whole, does not wish the trade in proprietary preparations continued, they should first purify their own ranks and stop prescribing secret preparations before laying all the blame for continuance of their use upon the shoulders of the druggist. The druggist has enough to bear in the way of responsibility for his own portion of the secret medicine traffic, but he should not be held accountable for all of it.

LIABILITY OF DRUGGISTS.

Hon. David McAdams, Judge of the Superior Court of New York City, recently delivered an address before the Society of Medical Jurisprudence upon the topic "Malpractice as Defined by Law." Those portions relating to druggists are abstracted by the Alumni Journal as follows:

"The rule of liability of a druggist who delivers a deleterious drug to one who calls for a harmless one is the same as that which governs the liability of professional persons whose work requires special knowledge and skill, and a person is not legally responsible for any unintentional consequential injury resulting from a lawful act when a failure to exercise due and proper care cannot be imputed to him.

"An action against a druggist for an error of his clerk in compounding a prescription rests upon negligence, and a right of recovery does not arise from the mere fact that a drug given was not included in such a prescription, as the defendant is entitled to have the question of the competency of his clerk and the exercise of due and proper care submitted to the jury.

"In such case, when the defendant assumes to fill the prescription, undertakes that he possesses the ordinary skill of a druggist or apothecary, and that he will exercise due and proper care in putting up the medicine required, the degree of care being proportionate to the gravity of the injury that would necessarily result from a want of care, the failure to exercise due and proper care is the only ground upon which recovery can be had in such an action.

"One who is ignorant of the properties of a poisonous drug is liable to a criminal prosecution for a negligent sale or use thereof.

"A druggist who grinds medicines in a mortar which has been used to grind poisons without properly cleansing it is liable to one injured by means of such careless use. So of a druggist on shipboard who neglects cleansing drinking utensils after using them with poisonous substances. So of a druggist who sells morphine instead of quinine, which causes death.

"A druggist who sells a deadly poison as a harmless medicine is liable, and one who labels a deadly poison as a harmless drug is liable for all consequences."

A German medical man, Dr. P. Furbinger, has been investigating peanuts, and finds that they contain 47 per cent of albumen, 19 per cent of fat and non-nitrogenous extractive matter. He recommends their use as a food on account of their cheapness, and finds that they possess medicinal qualities which make them suitable for employment in corpulence, diabetes, and certain kidney diseases where foods rich in animal albumen must be avoided.

(Written for the Era.)

PURCHASE BY INSTALLMENT.

By S. P. Whitmarsh.

In the majority of mercantile exchanges from time immemorial, each transaction has been complete, leaving both parties concerned to reflect on the gain and loss sustained and to accept the lesson of experience as a guide for the future. From the barter system of savage tribes to the usages of higher civilization, the transfer of personal property has been by mutual consent, consummated either by payment and delivery or delivery on a credit accompanied by good security. In this way human wants have been supplied by human agencies, generally at the minimum of cost; while the questions of value and economy of expenditure remained, to be settled by the means or tastes of the buyer.

The intrinsic value of each investment, whether large or small, if an actual need led up to the purchase, can be easily ascertained, and mistakes of judgment need not cause lasting regret. (It may be proper to add that a horse trade is distinctly excepted in these statements; since few instances are on record where both parties enjoyed the luxury of a good bargain.) In the exigencies of personal needs a departure from the safe rules of mercantile ethics has been taken that in course of time became a practice injurious to the interests of both buyer and seller. Thus originated a general credit system that had no regard to the needs of the customer; but only pandered to his wishes, that were never denied so long as he was supposed able to pay at some time not very remote. The desire to sell goods at every hazard, and the tempting inducements held forth, have tended to subvert habits of economy so necessary to all who are in the possession of moderate incomes. The temptation to buy in advance of ability to pay lies at the root of many evils, though this be ascribed to other causes. The desire to keep up appearances with people of larger means only needs the opportunity that a careless system of credit affords to place the citizen with a small income, if he be an honest man, on the rack of anxiety concerning how he is to pay for goods bought under such alluring conditions.

And now comes in the installment plan of selling goods to add more discouraging features to a credit system already stretched beyond a safe limit for the seller, and demoralizing in its effects on the consumer. This system is more common in cities and towns, wherever customers are to be found with steady incomes from weekly or monthly salaries. Those who practice selling in this way defend it on the ground that it is the cheapest and often the only way for people of small means to purchase articles of household use, the price of which would cover the earnings of several weeks. They forget that it is as easy to save in advance of purchase as it is afterwards. Besides, as the price is usually made higher to compensate for interest and the chances of loss by waiting, there is a better way for the buyer to attain his end in which he need not be compelled to such painful economies. The sum so often spent by the installment plan on a stove, chamber set, sewing machine, or musical instrument, if put by little into a savings bank would save the prudent buyer at least 25 per cent,

as compared with the wasteful methods now so common, besides many a heart-ache or forced sale.

But such financiering is too heroic and slow to suit the present age. To a large class of well meaning people the persuasive tongue of him who asks them to buy on a different plan makes music that charms the mind away from the warnings of common prudence, and lays a foundation for many useless regrets. They are tempted by the smallness of payments to add many comforts that might well be spared for a while, and even some luxuries, without a realizing sense of the aggregate obligations assumed. The sum total that seems far distant and the trilling weekly or monthly payment obscure one's vision until the investment has gone too far to be recalled. In many cases all future earnings for months are mortgaged to an inexorable fate, leaving nothing to meet emergencies such as sickness or death. Often the physician who generously attends them in utmost need is kept out of his well-earned moderate fees because some installment contract, made in haste and repented of at leisure, has drained the household purse that would with ordinary prudence never have been found empty.

It is very common for writers on political economy to attribute the evils under which so large a portion of our population are kept poor to vicious or criminal habits. But one who observes will find that the most frequent producing cause is improvidence; and a large part of that improvidence may be charged up to the practice of buying goods on the installment plan of payment.

Outside of those who purchase for personal or household use no class furnishes such object lessons in improvidence, and so many inexcusable victims to this pernicious scheme of trade as the druggists. The motive of the buyer is the same as in cases above noted, and his hopeful, buoyant spirit sees visions of future prosperity and complete possession, through a silver stream of nickels and dimes that seems sure to flow boundlessly into his purse in the "Sweet Bye and Bye." In this elastic frame of mind he receives the fascinating tale a solicitor for his trade unfolds to his astonished senses. And listening, he becomes hypnotized till he is ready to sign anything that will give him an opportunity to realize the results so eloquently set forth.

With him "to hesitate is to be lost." He forgets for a time that he is a business man and believes the other fellow is talking business. So he is—for himself—and the horse he represents; and not for the one on whom he has been spending exaggerations with such powerful effect. Before there has been time for sober second thought to make out a search warrant for common sense to produce disenchantment the fatal contract is signed with all its dips and angles, by which he binds himself to pay by installment a sum total for an article equal to from four to six times the actual cost of the manufacture, the said article to be and remain the property of the seller and insured by the purchaser till the uttermost farthing of principal and interest has been paid.

It is perhaps safe to say that once in a hundred times men have signed such a one-sided document and escaped without loss. But the discount in value from the

purchase price after a sale has been made reminds one of the fall of the mercury in a Nebraska blizzard. In ninety-nine cases the article stands a monument to the deceased judgment of the buyer without regard to whether he ever completes payment and acquires possession or not.

The installment plan of purchasing may be a nice thing for a millionaire to try within his hours of leisure, as he would with a picture, statue or any other work of art; since he does not separate the real from the esthetic value in articles which please his taste or imagination. But a struggling druggist who is threatened by the cut-rate, green-grocer's competition and whose business stand is outside the fire limits of any large city, has enough to risk in the ordinary vicissitudes of business without investing in an article which, while it may for a time be a "thing of beauty," can never be to him "a joy forever."

The taxes levied on purchasers over and above the actual value of goods sold, represent the last straw that has overloaded many worthy men and firms and sent them into bankruptcy. No article that is loaded with 400 per cent and more of profit can be a safe venture for any business man. If it were not for the installment plan of selling goods no such profit could be realized and the loss now sustained by purchasers would be reduced so as not to exceed what may be looked for in other lines of business.

The evil of methods above described does not lie in the fact that they are in any respect dishonest or illegal, but that they tempt to extravagance in outlay which should ever be avoided by those who wish to thrive. They are like many others of the present time, thoughtlessly accepted by those whom one would suppose more alive to their own interests, and seeing this, the reform must come, if at all, from the buyer.

HOW TO DETECT HORSEFLESH.—

We do not at present see any particular application for a test of this nature, which is described by Brantigam and Edelmann in Pharm. Centrall., but perhaps, in Europe, where Chicago dressed beef is not very plentiful, man's greatest friend, the horse, is often sacrificed to provide food. In fact, we have heard of meat markets in Europe where horseflesh was made a specialty, and perhaps a test to establish its identity is desirable, not that one may not eat it unawares, but that one may be sure that he gets horseflesh when he wants it. The method is based upon the well known iodine reaction of glycogen, a substance that is always present in horseflesh. The flesh is finely divided, boiled with four times its weight of water, and the solution treated with dilute nitric acid to precipitate albuminoids, and then filtered. To the filtered solution is added hydriodic acid in such a manner that two distinct layers are formed, which at the point of contact will show a red or violet zone if glycogen be present. If the reaction is not distinct, showing insufficient extraction of the glycogen from the flesh, it is directed that a solution of caustic potash containing potassium hydrate equivalent to 3 per cent of the weight of the flesh be substituted for water in the extraction. This reaction is said to be characteristic, as the flesh of other animals than the horse does not contain glycogen.

[Written for the Era.]

A REPLY TO MR. N. H. MARTIN'S CRITICISM OF THINGS AMERICAN.

By F. M. Goodman,

Dean of the Chicago College of Pharmacy.

I enter upon a reply to the criticism of Mr. Martin with the kindest feeling, for he has made such gross mistakes that I feel sure he will be pleased to be set right and have pointed out to him how he might have learned more of American customs and American pharmacists than he did. His communication shows him to be a thoughtful and observing gentleman, and such a one as Americans like to meet. We are not as a nation very sensitive, but rather like to be criticised for. If just, we always try to turn others' ideas to personal profit. Upon considering the subject I am led to say that in framing this reply I find would take two texts, one for myself and one for Mr. Martin; for my own I would quote the Scottish bard: "Would some pow'r th' rattle gie' us, to see oursel's as thers see us," and his I would take from the Scriptures: "I was a stranger and ye took me in."

The gentleman enters upon his detailed remarks with such earnestness that, when in reading, I come to the remark relating to our railway service, I can hardly persuade myself that he has not ruptured a facetious vein and is trying to pass off a little witticism without a smile, so I will be just as earnest as he seems to be. He says: "There is simply no comparison between the smooth precision with which our trains run and the rolling motion of an American express train. It rolls and rocks worse than a ship does at sea, except in a storm." This makes one smile, and were it not for his apparent belief in his own statement, I would simply pass it by as an hyperbolic expression. This point, however, to make sure, I referred to my own father, who was born and brought up in Hertfordshire, on the outskirts of London, and who paid his old home a visit a few years ago. He said: "My experience is that one riding in what are regarded as first-class trains could not tell in which country he was riding, so far as motion is concerned." We may freely admit that English roads are finely ballasted, and we know they have fine coaches, for America makes a good many for them; but let me offer a quotation on this point from the *Encyclopaedia Britannica*, Am. Ed., 1892: "In no country in the world are the equipments and appointments for railway travel equal to those available in the United States. To a substantial roadbed, thoroughly ballasted and laid with steel rails, is added rolling stock unsurpassed in respect to construction, elegance and appliances for the promotion of the comfort of travelers. These acquisitions, which have come into universal use in the United States, are gradually being adopted in England and other European nations." But, while we may agree with Mr. Martin that all roads of England are in fine condition, we cannot say that for all of our own; the reason is, we have as much to look after. In 1886 the United Kingdom had only 19,332 miles in operation, while we had 150,000. I am sorry Mr. Martin overlooked mentioning our system of checking baggage. We consider that a great improvement over looking after one's "luggage" personally, and recommend it for European adoption.

The gentleman pays us a very pretty compliment when he says that upon being called upon to speak. "It was embarrassing and would have been more so except for the manifest courtesy and kindness of the listeners, who seemed to know what I ought to have said and who were sure I would have said it if I could." In this reply I purpose simply extending this courtesy, for I am in a position to know what the gentleman "ought to have said."

His criticism of the American Pharmaceutical Association: "One thing struck me very forcibly, and that was the volubility with which men read papers and discussed views and practices, without the least intention or thought that they would have a practical bearing. It all seemed academical and inconsequential," is very mild; it might have been much more pointed to advantage; and I feel that he is fully aware of it and is not criticising according to just impressions.

"With regard to education" the gentleman does not read between the lines: "Most of the colleges, as the complement of an attendance upon their prescribed course and a more or less serious examination, confer upon their students the title of 'graduate in pharmacy,' but so slight is the confidence reposed in its meaning anything, that at the meeting of the A. P. A. in Chicago the following report was unanimously adopted in the section on legislation: " * * * It is the sense of this section that the best interests of pharmacy are secured by the non-recognition of diplomas by the state boards." If Mr. Martin had inquired into the meaning of this he would have been told that physicians demand registration as pharmacists on the strength of holding a diploma from some medical college or other wherein pharmacy is not even taught, and in order to overcome this it was necessary for pharmacists and schools of pharmacy to insist upon the examination of all who desire to enter the ranks. It does not belittle the degree of graduate in pharmacy in the estimation of Americans, and it is no hardship for college graduates (pharmacal) to pass these board examinations.

The gentleman speaks of: "Crude and raw students, with as little as fifteen months' practical experience of the drug business, and being under age, having been granted diplomas. The dean (sic) of one college claimed that 'every American college is doing the same thing.'" In the first place, the "sic" should have been placed after "college," as well as after "dean" in this quotation. Then, does Mr. Martin really believe that, in a country as vast as ours, "there are none righteous; no, not one?" and that every American college is doing the same thing, carrying on illegitimate work? and this because one disgruntled dean told him so? Verily, the gentleman was a stranger and was taken in. He evidently fell in with the wrong dean to get correct information. As a heritage from our great forefather, "We cannot tell a lie," Mr. Martin's informant may be pleased to be considered an American, but he is not properly constructed to be a true one. And when the gentleman speaks of pharmacal journals admitting "the existence of the evil, although some of them 'hedged,' but it was mentioned as a significant fact that those journals were the organs of the college complained of," he brings things down to a very fine point,

for there is but one college of pharmacy in Chicago which publishes its own organ. He speaks of organs and colleges as though every college he intended to criticize had its own organ to blow. Then, after quoting a question raised in the A. P. A., he falls into the Chicago College of Pharmacy just as specifically as though he mentioned its name in full, for no other college has the curriculum it has, and he has quoted word for word from its announcement. So, I may be pardoned for trying to correct the wrong statements he has been led to make.

The A. P. A. question referred to was: "How can colleges of pharmacy be placed upon a purely educational basis, instead of being conducted for the money they can make?" If Mr. Martin had called upon the dean of this college, instead of being taken in by the dean of some other college, he would have had this question answered in a way that would have surprised him, for he would have learned how it has already been done in this city, without looking to the very small and uncertain income of "one-fourth the sum now expended for association entertainments and commercial interests." Colleges of pharmacy can be placed upon a purely educational basis by being conducted as the Chicago College of Pharmacy is. It belongs to no corporation, company or individual; it is managed by a board of trustees selected from the pharmacists of the city, each member freely giving his services for the good of pharmacy, without one cent of compensation; it is not conducted for profit, and no dividends are ever declared. It has been thus conducted since 1839. Its classes by far outnumber those of any other college in the west, and all funds received are spent in educating the students.

The gentleman caught onto this question as though it was enigmatical, but he will see that it is not. Some colleges of pharmacy are run for the money there is in it, but this one college is run for educational purposes. Further, a gentleman visiting us from a foreign country and one whom we treated as such, should have offered quotations in full instead of selecting a few words here and there, and putting them in quotation marks. It reminds me of the disgusted patient who wrote to the patent medicine man: "I have taken six bottles of your medicine, and I say you are a fraud. I think there is not another medicine like it in the world; it is a perfect humbug. Publish this if you wish to, you contemptible quack." Yours, A. B. C. The next lot of advertisements contained: "I have taken six bottles of your medicine and * * * I think there is not another medicine like it in the world. * * * Publish this if you wish. * * * Your, A. B. C."

Mr. Martin tells this same sort of truth. He says: "One college even advertises the fact that students attending it can obtain situations easily and earn enough for board and lodging." He would thus convey to his readers the notion that such was the American idea, and the idea of this college in particular, but here is the sentence which he pretends to mention: "While the lectures and laboratory exercises present to each student enough mental and physical work to occupy his whole time, still the hours of lectures and exercises are so arranged as to permit students who desire, to serve a part of their time in stores, thereby defraying their

personal expenses. This is especially desirable for junior students who may lack practical experience in a city pharmacy. With three days and every night in the week to themselves their services in a pharmacy may be worth sufficient to pay for board and lodging.

Then: "With regard to practical work, we find that one of the colleges, which boasts that 'the facilities for laboratory instruction are unexcelled in this or any other country,' and has a botanical laboratory, a microscopical laboratory, a chemical laboratory, a pharmaceutical laboratory and a dispensing laboratory, condenses its practical work into two hours twice a week for twenty-five weeks." The sentence referred to reads:

"No pains have been spared to make the lecture course as complete and thoroughly adapted to the wants of the profession as possible, and it is believed that the facilities for laboratory instruction are unexcelled in this or any other country."

In reply to this I will state that when this college was destroyed in the great fire of 1871, our British friends sent us a good-sized library, a deal of the most expensive apparatus used in the microscopical, pharmaceutical and chemical laboratories, and to these are being constantly added the most approved apparatus. The gentleman probably did not like the reference to "any other country," and so attempts

to belittle the college which is proud to call its capacious lecture room "Attfield Hall," and which is equally proud of the life-sized portrait of Prof. Attfield, which hangs on the wall above the lecture stand. We thus show our appreciation of the kindness from abroad, extended to us in our hour of trouble, and which started us on our way to a full realization of the statement made in our announcement.

On page 3 of the College Announcement is: "The course offered by this college comprises twenty-eight weeks, devoted to lectures and reviews and laboratory work," and the time card shows six laboratory hours on Monday, twelve on Tuesday, six on Wednesday, twelve Thursday and three Friday, and yet the gentleman says this college "condenses its practical work into two hours twice a week for twenty-five weeks," whereas every minute of the time is spent as is outlined in announcement and time card. Our botanical laboratory is the microscopical laboratory, and flasks are not made otherwise; nowhere is it stated that we have the two laboratories mentioned, and yet this gentleman, who has visited America twice and who says: "I do venture to think the opinions I have formed are based upon a reasonably accurate acquaintance with and interpretation of the facts of the case," comes to these unwarranted conclusions, and in turn tries to mold the opinions of others.

He then starts in to ridicule the idea of giving lectures on anatomy, physiology, and the application of medicine to disease, and the application of trusses to hernia. "I think the gentleman and his confederates will agree with me that every student of medicine should know something of nature's laws. 'Know thyself' is still the meaning. The pharmacist is frequently called upon to suggest remedies, and these lectures demonstrate to them that they cannot even recommend a cathartic intelligently without a knowledge of how medicines act, and this is incomprehensible without a knowledge of anatomy and physiology, and an interesting outline of

these studies is offered in order to induce them to study more profoundly. Mr. Martin simply failed to translate the object of these lectures, and does not, when in an unbiased frame of mind, really imagine that by this college "students are supposed to be so proficient in these various studies that time is found for lectures on anatomy, etc.," I know he does not, therefore I will explain: In teaching materia medica therapeutic action is always mentioned, the text will say, for instance, "Opium is useful in all forms of diarrhoea. Why? Because it influences the peristaltic action of the primæ viæ. It will state, also, that a certain cathartic affects only the small intestines, and another only the large, another will relieve headache by its revulsive action, another by the same action will prove to be an emmenagogue. Now, how can a student comprehend such teachings without some knowledge of anatomy and physiology?"

Further, many of our pharmacists sell trusses. This college tries to do its best to fit the graduate for any position in a pharmacy; can a man intelligently fit a truss without some knowledge of the pelvis and femoral region? I hope the gentleman will live to see these same branches taught in every well-organized college of pharmacy.

Mr. Martin's next observation is "Amongst 'elective subjects' we find lectures on the origin and location of mankind, the origin of trade, botanical gardens and medical practice," but in order to induce the student to "elect" to follow these, he is assured that "the subject is very interesting and takes up two lecture hours." I am so sorry that the gentleman did not fall in with a Chicagoan and imbibed some truth. In the first place, this college has no "elective subjects," and a student cannot "elect" to follow or elect not to follow, and when he offers this quotation so slightly in order to think that he regarded such information of no importance, but I might call his attention to the fact that one of the most famous of works, the "Pharmacographia," appends historical notes to almost every article, and Flueckiger & Tschirch, in their "Principles of Pharmacology," bestow about forty-five pages on history and botanical gardens. We go farther, and start with the dispersion of the Aryans as outlined in Freeman's historical course, and trace the development of people and drugs side by side, and it is pronounced interesting.

With regard to botanical gardens it is a well-known fact that tracing their development is watching the development of the science of botany itself, and while our British friends have their famous Kew and Apothecaries, we, too, have some equally famous, though not as old as the Washington and St. Louis, and it was the establishment of one in Chicago, founded in South, or Jackson Park, which furnished the world's fair its site, and, incidentally, it was Prof. Babcock, of the Chicago College of Pharmacy who above all others, was selected to establish and work after it.

The gentleman's knowledge of the workings of some of our state boards is just as rude as is his information concerning colleges of pharmacy. He says: "There are no specially fitted up rooms or laboratories suitable for the conduct of practical subjects," etc., while in truth the state board have elaborate compartments

permanently located on Thirty-ninth street of this city.

But as I have already made my reply more extended than I expected to, I will not ask for further space, but will leave other inaccuracies uncorrected.

THE RELATION OF TEACHING TO RESEARCH IN CHEMISTRY.

By W. E. Stone.

It is eminently proper that this Congress of chemists should devote some portion of its attention to the teaching of the science. This not alone because it is desirable that chemists be well taught, but also by reason of the prominent place chemistry has secured in the curriculum of every college and university as well as in many high schools. The teaching of chemistry in institutions of learning is a modern innovation, introduced and developed within the memory of living men. The chemical laboratory as a means of instruction was first recognized in America about thirty years ago. Now the chemical lecture room and laboratory form an essential part of the equipment of every institution for higher education. It naturally follows that teachers of chemistry have become numerous, and positions of this kind are the goals toward which many young chemists aspire.

The teaching of chemistry has therefore become a kind of profession with its own peculiar limitations and disappointments as well as pleasures and aspirations. The discussion of methods and details of teaching chemistry I leave to the speakers who are to follow me. I wish, however, to consider briefly what I regard as a most important feature of didactic chemistry, viz.: The attitude of teachers of chemistry toward research.

A survey of the field reveals an interesting comparison between America and Europe in this respect. In the European universities we find the teachers of chemistry including the famous investigators and discoverers. It is a recognized function of the teacher that he be also an investigator. Indeed his appointment to a chair in any of the great universities is dependent upon his standing as an investigator and he retains his position only so long as he maintains this standing. In short, one of the necessary qualifications of the teacher is active participation in scientific research. Turning to America, two features are at once noticeable. First, a less degree of activity and attainment in scientific research, and second a weaker interest in the spirit of investigation. We must acknowledge that our teaching and the results of our research are still inferior to those attained abroad. The reasons for this are probably complex, but chiefly they are to be sought in the relations of our teachers to investigation. Certainly our teachers of chemistry do not lack training, for many of them have been trained under the masters abroad which we recognize as superior. They do not lack enthusiasm because there are many young men with the successes and examples of their European preceptors still in mind. Our American teachers are not at the head in their profession by reason of any lack of training or enthusiasm or mater-

*Opening address by the Chairman of the Section of Didactic Chemistry at the World's Congress of Chemists, Chicago, August, 1893. Reprinted from Jour. Amer. Chem. Soc.

laid equipments. If I ask then why, any one of my hearers can answer promptly. Every American teacher of chemistry has a common complaint to voice. They will tell you that the demands made upon them as instructors are alone culpable for their meager contributions to the annals of research. Too many students. Too many hours of teaching. Too many subjects to be taught. These are the counts in the indictment against the conditions under which our American teachers exist.

In short, to sum up the existing status, we find ourselves somewhat in the rear of the foremost ranks of investigators and teachers. We find these branches most flourishing where the activity of the investigator is a required qualification for the teacher. In our own country we find these requirements of secondary moment or they are lost sight of entirely. This seems to me not only a great fault in our educational system, but also a very serious hindrance to the progress of American chemical science.

I am aware that some will fail to see the relation between teaching and research in chemistry and will maintain that the teacher should be only teaching and the investigator only occupied with investigation.

We may regard this matter from the standpoint of the student, from the standpoint of pure science, and finally from the standpoint of the teacher himself.

The student has a right to expect instruction in chemistry either as part of a liberal education or as preparation for a professional career. In either case it is or should be taught, not as a dead and completed science, but as a constantly advancing, vital, living science. It is or should be taught as a science of investigation. The only one who can teach it as such must be himself an investigator. No one would maintain that the discoveries of Woehler or Hoffman did in any way detract from their effectiveness as teachers. On the contrary, it is apparent that in their characters as investigators they transmitted an inspiration to their pupils which has given to modern chemistry an incalculable impetus.

Again, science looks mainly to teachers for its advancement, since, as a rule, they alone have or should have at command the necessary funds, materials, and equipments for the prosecution of researches. Moreover, they alone have or should have the leisure and unbiased mind so essential in the search for truth.

Lastly, the teacher himself has no right to content himself with the single aim of the pedagogue. If he would not stagnate, he must advance. He must be himself a student, standing as interpreter between the unknown and his pupils. The true attitude of the teacher of chemistry to forward research is one of interest and active participation in precisely the same degree as he manifests interest in and sympathy with his pupils.

MIGRAININ is a compound of antipyrine, citric acid and caffeine, which has been found very effective in cases of severe hemicrania, in doses of 1.1 gram in aqueous solution. The patient should lie down for an hour after taking the dose, which may, if necessary, be repeated in a couple of hours.

Tea seed oil is much used in Southern China as an illuminating oil.

RECENT PROGRESS IN CHEMICAL TECHNOLOGY.

By Samuel P. Sadler, Ph. D.,
Professor of Chemistry in Franklin Institute.

Looking at the specific relations of chemistry to the mechanic arts, it has seemed to me desirable to open the series of chemical lectures with a "Review of Recent Progress in Chemical Technology."

In the production of the metals, the most notable advances made in recent years are those which concern the light metals, aluminum, magnesium and sodium, and these advances have been largely coincident and connected with the great improvements in applications of electricity. Thus, until the issue of the "Patented" patents in 1885, aluminum was manufactured solely by the Deville process, at Salindres, France, and later at Oldbury, near Birmingham, England, under Webster's patents. In 1885, the Cowles electric process was made public and has continued in use to the present time. Heroult's process, also an electrical one, was patented in 1887, and is at present being worked on a large scale, both in Switzerland and France. Hall's process, patented in 1889, and Minet's, which is practically identical with Hall's, however, represent the most successful applications of the electrolytic method to the production of the metal aluminum. So it has come about that the Aluminum Company, of Oldbury, England, although it has cheapened the price of sodium under Castner's patents and controls Webster's Improvements on Deville's process is unable to make aluminum in competition with the electrolytic methods and has retired from that field. In this country and in England, the two processes now in use are those of Hall and Cowles, while on the continent, the Heroult and the Minet processes are followed.

The production of aluminum in 1892 was as follows: In the United States, 133,779 kilos; by the Aluminum Industrie Actien-Gesellschaft, at Neuhausen, in Switzerland, 286,100 kilos; and by the Societe Electro-Metallurgique Francaise, Isere, France, 69,000 kilos. The English production I have not seen stated.

At the Columbian Exposition the raw materials and the products of the aluminum industry were very satisfactorily shown by the Pittsburg Reduction Company, and some individual exhibitors in the galleries of the Mining Building. The bauxite used as the source of the alumina is now mainly supplied from the Alabama and Georgia deposits, which were also well illustrated in this connection.

As the Aluminum Company, of Oldbury, England, as just stated, have had to retire from the competition with the electrolytic processes, they have devoted themselves to the production of sodium and, in looking for new utilizations for the metal, have brought out sodium peroxide as a commercial product. This has already found a large sale for wool and silk-bleaching and other purposes for which hydrogen peroxide has been used. As compared with barium peroxide and hydrogen peroxide (10 volume solution) it contains available oxygen as follows:

93 per cent sodium peroxide	19.5
51 per cent barium peroxide.....	8.6
10 volume solution hydrogen peroxide 1.6	

(An Introductory lecture to the Chemical Course at the Franklin Institute, 1893-94. Reprinted from the Jour. Franklin Institute.)

It is made, according to Castner's patent, by treating metallic sodium contained in aluminum vessels at a temperature of 300° C. to the gradual oxidizing action of a mixture of oxygen and nitrogen in which the proportion of oxygen is gradually increased. This is done in an iron pipe which passes through the furnace and along which a current of air is passed from one end. The vessels containing the sodium pass along the entire length of the pipe, the sodium being oxidized at first by air which has almost been deprived of its oxygen, the proportion of the latter gradually increasing until it is finally oxidized by air containing the full amount of oxygen. The product is a yellowish white partially powdered substance, which dissolves in water with considerable evolution of heat. It may be used to develop hydrogen peroxide just as the barium peroxide is used, or used direct with the addition of a magnesium salt in order to convert it into magnesium peroxide, the alkalinity of the sodium peroxide when taken alone being injurious.

In turning to the metallurgy of the heavier metals, there are improvements capable of being discussed in the case of many of them, but for the purposes of this review we will have to choose only the most prominent for mention. The one which has certainly attracted the most attention on the part of chemists is the so-called "cyanide process" for the extraction of gold and silver from their ores. While the fact of the solubility of gold and silver in cyanide of potassium solution has been known for years and applied in electro-metallurgical processes, the application of this solvent power of the cyanide for the extraction of the finely disseminated metal from the ore has only been made in the last few years. The process has been applied in the United States under the patents of Simpson and others and on a larger scale in the South African gold fields under the patents of MacArthur and Forrest. The process as applied to gold ores is in outline as follows: The damp tailings are charged into wooden vats of a capacity of fifty to seventy-five tons and the vats filled to within a few inches of the top. Cyanide solution of 0.6 to 0.8 per cent strength is then allowed to flow into the tank until it is completely filled. This solution is allowed to remain undisturbed in contact with the ore for twelve hours. Each vat is provided with a false bottom covered with some straining material, usually cocoanut matting. Below this is a layer of coarse sand and pebbles, through which the solution percolates. An iron pipe communicating with the vat below the false bottom takes the filtered solution to the "zinc boxes," when precipitation takes place. As the liquor is drawn off during the leaching process, it is replaced by fresh solution. This operation is continued from six to twelve hours, according to the value of the tailings. At the end of this period, which is known as the "strong solution leaching," a weaker solution (containing 0.2 to 0.4 per cent cyanide) is turned on and allowed to filter through the ore for about eight to ten hours. When this is drawn off a quantity of wash-water about equivalent to the moisture originally contained by the ore is run in and the weak cyanide solution so displaced. The amount of cyanide solution used is about half a ton of strong and half a ton of weak solution for every ton of ore treated. This part

of the process has been modified by pumping back the solution as it filtered through the bottom of the vat and so keeping up a circulation of the original solution for some thirty-six hours. The extraction of gold by this circulation system was equal to that obtained by the ordinary method and the consumption of cyanide was much less. The cyanide solution carrying the gold dissolved now goes through wooden troughs, commonly known as "zinc boxes," where shavings of zinc cause the deposition of the gold as a finely divided black slime upon their surface. After passing the "zinc box," the "exhausted solution," which should not retain more than a trace of gold, flows into a storage tank to be pumped back to the leaching tanks when a fresh charge has to be treated. Very great loss of cyanide takes place by secondary decomposition of the potassium salt, due to the galvanic action of the gold-zinc couple that is formed. The slime of finely divided gold and silver with a large proportion of zinc and lead, and smaller amounts of tin, antimony and accidental impurities after thorough settling is transferred to enamelled iron pans and carefully dried. It is then mixed with sand, borax, and bicarbonate of soda and melted in a crucible yielding a bullion about 650 fine.

In the Molloy process, which is said to be in successful operation in South Africa, the use of zinc is dispensed with altogether. The cyanide solution from the leaching tanks passes through a shallow trough containing mercury, in which is an inner cylindrical vessel filled with solution of carbonate of soda; the edges of the cylinder just dip beneath the mercury so that its contents are entirely cut off from the outer portion of the vessel. A rod of lead dips into the soda solution; the lead and mercury are connected with opposite poles of a battery, and the solution is electrolyzed by the passage of a current. The sodium combines with the mercury to form sodium amalgam which at once decomposes the gold cyanide solution with formation of ordinary gold amalgam, sodium cyanide being simultaneously produced. It is claimed that much less decomposition of the cyanide takes place than with zinc, and moreover that the outflowing solution is better adapted for dissolving fresh quantities of gold. In the ordinary method a large accumulation of zinc in the solution must take place, which in time renders them valueless for gold extraction whereas sodium cyanide is just as effective as the potassium compound.

Turning now to the acid and alkali industries not much of fundamental importance is to be noted in the former. At the Columbian Exposition were shown in the exhibit of Heraeus, of Hanau in Germany, large platinum stills of the Faure and Kessler system, in which the interior of the still was plated throughout with gold. It has been found that this surface of gold will stand the action of concentrated sulphuric acid much longer than one of platinum. I have since seen two such stills in operation in a large chemical works and understand that the claim is thoroughly borne out in practice.

Perhaps the most important matter of interest in connection with the alkali industry, is the attempt now being made by numerous experimenters to accomplish a commercially successful electrolysis of salt solution with chlorine and caustic soda as the products. The results, with

two of the most prominent processes (the Greenwood and the Le Sueur) were summed up some months ago by Messrs. Cross and Bevan, of London, England, and from their article (Jour. Soc. Chem. Ind., 1892, p. 963) we shall quote. The chief difficulties met with were the devising of a diaphragm of such low resistance as would allow the electrolysis to proceed with a reasonable low electro-motive force, and which would at the same time effectually prevent the recombination of the products of electrolyzer; and the construction of an anode which would stand wear and tear. In the Greenwood process, "the electrolysis consists of a rectangular tank of slate or other suitable material divided into compartments by means of diaphragms. These are made of a number of V-shaped shelves of glass or slate placed in a mahogany frame. The spaces between the shelves are filled with asbestos. On one side of the diaphragm is the cathode made of iron and on the other side is the anode. This is of peculiar construction, being built up of a number of pieces, of hard retort carbon cemented together by first impregnating with tar and subsequently heating to a high temperature. The inside is filled with type metal. The cathodes and anodes in every electrolyzer are connected together in parallel circuit, the electrolyzers themselves being in series. Arrangements are made by means of pipes for allowing the salt solution, which is about half-saturated, to flow through all the anode and the cathode sections, respectively. The chlorine which is evolved passes into the chlorine main. The caustic solution after passing through a sufficient number of electrolyzers is evaporated, and the excess of undecomposed salt removed. In the Le Sueur process, the electrolyzers consist of an iron tank fitted with a sloping floor on which rests the cathode. This is formed of a ring of iron filled with several pieces of iron wire gauze. Several small holes are drilled in the top part of the ring to allow of the easy escape of the hydrogen. The diaphragm, which rests upon the cathode, consists of two parts, a sheet of ordinary parchment paper, and a double sheet of asbestos cemented together by means of coagulated blood albumen. The anode consists of pieces of ordinary retort carbon imbedded in a mass of lead through which electrical contact is obtained. In this process the diaphragms have to be renewed every forty-eight hours, and the carbon anodes in from six to eight weeks. When the electrolysis has been continued long enough for the solution of caustic to reach a strength of about ten per cent the liquor is run away, and the alkali precipitated as bicarbonate. The Le Sueur process is now in operation at Rumford Falls, Me., on a scale of three tons of bleach per day. E. Hermite and A. Dubose (Zeitsch. fuer Angew. Chem., 1892, p. 729) claim that all these attempts at simple electrolysis of salt solutions will remain unsatisfactory, because the heat of the combination of sodium and oxygen is less than that of sodium and chlorine, so that a current of sufficient electro-motive force to decompose sodium chloride will also decompose the sodium oxide as fast as formed. Thus the electro-motive force used is practically wasted. They have proposed and patented two methods for preventing this. The first is to cause the sodium oxide in the moment of its formation to enter into combination to

form a sodium salt possessing a higher heat of chemical union than sodium chloride, so that the electro-motive force of the current may remain constant. Such a compound they find in sodium aluminate, which will form if pure gelatinous alumina be present in the salt solution undergoing electrolysis. As soon as all the alkaline chloride is decomposed, the current is stopped, and carbon dioxide is led into the solution when the alumina hydrate is again set free while sodium carbonate is formed. Their other proposal is to use as cathode plates of amalgamated copper or other metal over which a thin layer of mercury is continuously made to pass. As the alkali metal separates out, it is amalgamated, and this sodium amalgam is, by a special device, removed promptly into another receptacle where it is decomposed by water, with the formation of caustic soda solution.

I am not aware that these proposed processes are as yet carried out on a practical scale. Cross and Bevan, however, state that the original Hermite process for the continued electrolysis of magnesium chloride solutions for bleaching purposes is proving highly successful on the continent of Europe, and that it is now replacing 3,000 tons of bleaching powder per annum.

While the two great products sought to be obtained in all of these processes above described are chlorine and caustic soda, it must not be overlooked that these are side products. In the solution will be found hypochlorites and chlorates also. In connection with the Greenwood process it has been proposed to extract the latter salt.

An entirely different utilization has, however, been proposed for weak electrolyzed brine solutions, depending upon the development of hypochlorites therein. I refer to their use as disinfecting agents. The Woolf process, as taken up for experiment by the New York City Board of Health, proposes to disinfect large quantities of liquid sewage by adding to it weak electrolyzed brine solutions, and it is stated by Dr. Cyrus S. Edson to have accomplished very remarkable results in the experiments made under his direction in New York.

In the class of nitrated mixtures for explosive purposes there has been much published and patented in the last few years. The improvements have been mainly in two lines, viz.: smokeless powders and high explosives which combine safety of transport and handling with great energy of decomposition. The former are largely mixtures of nitro-cellulose and nitro-lignin (both soluble and insoluble varieties) with alkaline or alkaline-earth nitrates. A very interesting series of analyses of such smokeless powders, by Prof. C. E. Munroe, formerly of the United States Naval Torpedo Station, at Newport, will be found in the January number of the Jour. of the Am. Chem. Society. The second class include mainly mixtures of substances very rich in oxygen, whether solid or liquid, and highly condensed carbon compounds. To these belong the series of Sprengel explosives, rack-a-rock (chlorate of potash and nitrobenzene) and similar compounds. These can be mixed frequently on the spot just before use, and so safety of transport insured as the compounds taken singly are inexpensive or in some cases peculiar detonating fuses are needed to develop their explosive power.

Very great interest has attached in recent years to the discovery of large and valuable deposits of native phosphates of value in the manufacture of fertilizers, but as a special lecture on this subject by a gentleman who has had exceptional opportunities of studying these deposits, will follow later in the course, I will leave the matter, feeling that it will be thoroughly discussed at that time. Similarly the cement industry and especially the manufacture of Portland cement, which has made great advances in the United States in the last few years, will be left for a special lecturer to follow later in the winter, a gentleman engaged himself in the manufacture of cement, and by the newest and most improved methods. A lecture is also down on our list on the subject of "Emery and other Abrasives." In this will doubtless be mentioned the very interesting new compound, known by the trade name of "Carborundum." By heating together a mixture of 100 parts of sand, twenty-five parts of salt and twenty-five parts coke in an electrical furnace for several hours is formed along with graphite a new and interesting chemical compound SiC (silicon carbide), to which the trade name of "Carborundum" has been given. This forms crystals of a greenish-gray color of the hexagonal system, of specific gravity 3.22, and of a hardness little if any inferior to the diamond. A full account of the discovery and properties of this interesting compound by the discoverer, Mr. Ed. G. Acheson, will be found in the September and October numbers of the Jour. of the Franklin Institute.

Turning now to the organic side of Chemical Technology, and beginning with the subject of petroleum and mineral oils, we may notice the interesting results of Professor Engler, of Karlsruhe, of which he presented a brief abstract in a paper read before the Chemical Congress at Chicago, in August last. He finds that almost all the animal fats and fatty oils when distilled under strong pressure yield hydrocarbons of the paraffin series. Besides the oil some water and combustible gas was always formed. By fractional distillation the oils yielded gasoline, benzene, illuminating and lubricating oils and even paraffine wax. Samples of all these prepared from train oil were shown in connection with the reading of his paper. The bearing of all this on our theories of the formation of petroleum is very important. Many prominent geologists have expressed the view that the origin of petroleum was to be sought in marine animal life, of which we find the mineral remains in the oil-bearing strata. Engler first distilled quantities of salt-water fishes and shells under strong pressure, but only obtained a mixture of nitrogenous bases, such as pyridine, bearing no relation to petroleum. But, as before said, the results were very different with train and fish oils. He therefore believes that while the easily decomposable nitrogenous material of marine animal life has disappeared, the accumulated fatty oils and blubber under the pressure of sedimentary strata, and aided perhaps by heat, have undergone destructive distillation with petroleum as the main products.

A new class of products of considerable practical interest derived from the class of semi-drying oils, like cotton-seed and rapeseed oils, is that known as "blown oils." These are produced by heating the

oils to a temperature of about 230° C. for some hours while a current of air is forced through them by a blowing machine. The changes effected are quite marked. Thus, while common cotton-seed oil has a specific gravity of 0.925 and a very moderate viscosity, after the blowing operation is complete its specific gravity is raised to 0.960 and the viscosity is raised in an extraordinary degree. Moreover the thorough oxidation thus effected has improved its character as an ingredient in lubricating oils in other respects. It is no longer liable to acidity when used as a lubricant, and so is especially adapted for mixing with paraffin oils for the manufacture of the best heavy lubricating oils. Numerous other uses have also been found for these blown oils, such as the manufacture of artificial leather and other products.

In the domain of the essential oils, very important discoveries have been made in the identification of the essential odoriferous constituents of several of the essential oils and the consequent synthetic preparation of these constituents. It has been established that the esters of certain alcohols of the composition $\text{C}_{10}\text{H}_{18}\text{O}$ and $\text{C}_{10}\text{H}_{16}\text{O}$ are the principal constituents of a large number of essential oils which owe their aroma in the main to the esters in question. Thus, for instance, linalyl-acetate and other esters of linalool, $\text{C}_{10}\text{H}_{18}\text{O}$, have been recognized as constituents of lavender oil, bergamot oil and petitgrain oil, while geranium oil, lavender oil and lemon-grass oil contain esters of geraniol, $\text{C}_{10}\text{H}_{18}\text{O}$, principally geranyl-acetate. In pine oils finally esters of borneol, $\text{C}_{10}\text{H}_{16}\text{O}$, have been found. It is similarly found that ethyl, $\text{C}_{10}\text{H}_{16}\text{O}$, the aldehyde of geraniol is the main constituent of oil of lemon and that rhodinol, $\text{C}_{10}\text{H}_{16}\text{O}$, is the fluid constituent of oil of rose. All of these compounds of definite composition are now prepared in a pure state and are coming into use in the perfumery trade as much more reliable than the natural oils themselves.

Another interesting class of products closely related to those just spoken of are the so-called "ester-gums," recently offered to the varnish trade as substitutes for copal, dammar, mastic, sandarac and other natural varnish gums. These ester gums are the glyceryl, methyl and ethyl esters of abietic and pinic acids and are prepared by saponifying ordinary colophony resin (or common rosin) under pressure and then freeing the ester so formed from water, etc., by distillation in vacuo. The artificial gums so obtained are soluble in all the varnish-forming solvents and form varnish films of great brilliancy and durability.

In a lecture which I delivered here in January, 1892, I spoke of the chemistry of starch and the decomposition products obtained from it under the influence of the diastase of malt. The importance of the industries based upon starch and its alteration products makes this a subject of practical as well as theoretical interest. Dr. Lintner, of Munich, has recently published the results of studies made by him on this action of diastase. He considers the existence of the complicated dextrine molecules of high molecular weight, described by Brown and Morris (an account of which was given in the lecture before referred to) as very unlikely. By the aid of phenyl-hydrazine as reagent, Lintner established the pres-

ence of isomaltose as an invariable ingredient in the product of the diastatic action. By the use of four different methods of study, viz., the determination of specific rotatory power, the reducing power of Fehling's solution, the molecular weight determination, according to Raoult's method, and the addition of phenyl-hydrazine as reagent, Lintner determines that five well-characterized products can be obtained from the action of diastase on starch. These are the three dextrines already known under the names of amylo-dextrine, erythro-dextrine, and achroo-dextrine, isomaltose and maltose. Supported upon the results of the molecular weight determination, Lintner gives to amylo-dextrine the formula $(\text{C}_{12}\text{H}_{22}\text{O}_{11})_n$; to erythro-dextrine the formula $(\text{C}_{12}\text{H}_{22}\text{O}_{11})_m$, and to achroo-dextrine $(\text{C}_{12}\text{H}_{22}\text{O}_{11})_k$. Brown and Morris' complex dextrines he considers to have been mixtures of these simpler dextrines with either isomaltose or maltose, as all five products of the diastatic action may exist together in the infusion at the same time.

The chemistry of cellulose and its derivatives has attracted the attention of many experimenters. Among the most important results have been those of Cross and Bevan on the new forms of cellulose obtained from what they term cellulose sodium xanthate. This is formed by treating the cellulose with a concentrated solution of sodium hydrate, and exposing this product to the action of carbon disulphide vapor. Action ensues, and in the course of an hour or two a yellowish mass is obtained, which swells up enormously on treatment with water, and finally dissolves completely. This crude solution containing yellow bye-products, yields the cellulose derivative in a pure state on treating it with saturated brine or with strong alcohol. These precipitate it either in a flocculent condition or in leathery masses which may be washed with sodium chloride solution or 65 per cent alcohol, respectively. On re-dissolving in water, an almost colorless solution of extraordinary viscosity is obtained. A 7 per cent solution of the compound, i. e., containing (say) 5 per cent of cellulose to 100 of water has a viscosity equal to that of glycerine measured by the rate of flow. The solutions of this cellulose-sodium xanthate undergo decomposition, however, spontaneously after a time, more rapidly by heating or the addition of reagents. There separates out then a firm coagulum of hydrated cellulose, easily capable of purifying by simple washing with water. The spontaneous gelatinization of the solutions appears to take place without change of volume, the coagulum invariably reproducing the details of the surface of the containing vessel. Shrinkage then ensues, the form of the coagulum being perfectly retained. Solutions exceeding 10 per cent strength (in cellulose) give a coagulum of great solidity; even when diluted to 0.5 per cent strength the cellulose jelly obtained has sufficient consistency to be handled. Among the many applications of the solution or of the pure cellulose separating from it, may be mentioned the following, which have been pointed out by the authors:

1. As an adhesive substance, replacing glue, flour paste, gums, india rubber solution, etc.
2. For sizing and filling textiles. In this

direction the important advantage of depositing a substance of the same chemical composition and physical properties of the textile does not need to be insisted upon. The authors in this way have introduced from 15 to 30 per cent of additional cellulose without the possibility of its presence being appreciated except by comparison with the unfilled fabric.

3. For purposes of producing casts and molds. By coating surfaces with the solution or filling hollow vessels, perfect reproduction of form and structural details can be obtained in the form of a more or less solid mass of cellulose hydrate. The cellulose when fully dehydrated by drying, forms a transparent mass, resembling horn, which can be worked in the lathe, taking a brilliant surface under cutting and polishing tools.

4. The applications of the various forms of the solid cellulose in block or film form are evident to any one who has followed the utilizations of celluloid or nitro-cellulose, over which this has the advantage of lack of dangerous inflammability.

One of the industries in which great changes have been made in the last few years, owing to the introduction of new chemical processes, is the tanning and leather industry. While the tanning of heavy leather has been improved by the widespread introduction of oak and hemlock bark extracts of definite and uniform composition, it is in the tanning of lighter leathers, such as calf and kid, that the greatest advances have been made. For these, the "dongola" tanning and the newer "chrome" or mineral tanning processes have almost entirely displaced older methods. The dongola process is a combination process using gambier, alum and salt together in the same liquid and following the tanning proper by a treatment of the leather with "fat liquor," or oil emulsified with borax or soda solution.

It is, however, the successful introduction of the mineral tanning processes which is now revolutionizing the manufacture of lighter leathers in this country. The process generally in use at present involves treating the skins at first with a weak solution of bichromate of potash, to which sufficient hydrochloric acid is added to liberate the chromic acid. After the skins have taken up a bright yellow color through their entire texture, they are drained and transferred to a bath of hyposulphite of soda, to which some acid is added to liberate sulphurous acid, which reduces the chromic acid to green chrome oxide, while the sulphurous acid is at the same time oxidized to sulphuric acid, which liberates a further portion of sulphurous acid until the whole of the chromic acid is reduced. The leather so produced is of a pale bluish-green color, tough and flexible, and thoroughly resistant to water. Indeed, it is this latter property which distinguishes it from all other forms of leather, as the combination of the hide fiber or corium with the chromium oxide is apparently more stable than its combination with tannin, and yields less to boiling water. The leather also can be dyed and produced in a variety of colors, but the dyeing must be done before the leather dries, as its water-repellent character is such that once dried it cannot be wetted sufficiently to take up a full color. The process is now carried out in this city at several

morocco tanneries on a very large scale, and with perfectly satisfactory results.

Chrome-tanning processes involving the use of chrome alum and other salts of the sesquioxide of chromium as the basis of the tanning vat have been used, but apparently the combination does not take place so readily as where the chromium oxide is obtained in statu nascendi by reduction from the bichromate under the influence of reducing agents. Basic chromium salts have also been recently proposed as mineral tanning agents, but of their practical success I cannot speak from personal knowledge. That mineral tanned leather has taken a strong hold upon the industry was made evident by the many and fine exhibits of such leather at the recent Columbian Exposition, and can also be gathered from the testimony of foreign experts who visited this country during the past summer. Prof. Henry Procter, of the Yorkshire College, Leeds, England, in a lecture delivered since his return, says of the chrome process that "it may be said to be the most striking new departure in tanning which has taken place within my memory."

With this brief and partial survey of the field I will conclude, simply drawing attention to the fact that we will have the pleasure this winter, in our course of lectures, of hearing several of their subjects taken up in detail by eminent specialists.

ELIXIRS OF CHLORIDES.

The Indiana Pharmacist comments upon the fad for the combining of chlorides or iodides into certain preparations, as elixirs, and offers a few formulas for those most called for with a little modification and substitution of the iodide for the chloride the elixirs of the iodides can be made in the same manner).

ELIXIR ONE CHLORIDE.

- Corrosive sublimate 2 grains.
- Water 8 ounces.
- Syrup orange 8 ounces.
- Dose—Teaspoonful after each meal.

ELIXIR TWO CHLORIDES.

- Tincture chloride of iron, 1 ounce.
- Solution chloride of arsenic 2 drams.
- Simple syrup, to make.... 16 ounces.
- Dose—Teaspoonful after each meal.

ELIXIR THREE CHLORIDES.

- Corrosive sublimate..... 3 grains.
- Chloride of ammonia..... 2 ounces.
- Solution of chloride of arsenic 3 drams.
- Simple syrup, to make.... 16 ounces.
- Dose—Teaspoonful after each meal.

ELIXIR FOUR CHLORIDES.

- Corrosive sublimate 4 grains.
- Solution chloride of arsenic 3 drams.
- Hydrochloric acid, dilute. 4 drams.
- Tincture chloride of iron... 8 drams.
- Simple syrup to make.... 16 ounces.

ELIXIR FIVE CHLORIDES.

- Corrosive sublimate 3 grains.
- Solution chloride of arsenic 3 drams.
- Hydrochloric acid, dilute... 3 ounces.
- Tincture iron chloride.... 3 ounces.
- Ammonia chloride 3 ounces.
- Simple syrup, to make.... 16 ounces.
- Dose—Teaspoonful after each meal.

There are 4,781 distilleries in the United States, with New York at the head, closely followed by Pennsylvania and Illinois.

PHARMACY.

QUININE has found new application in the treatment of infected wounds. In antiseptic properties it is considered superior by some to corrosive sublimate or iodoform, and it is claimed that when applied in 1 per cent solution, healing takes with surprising rapidity. This seems but a logical application, and one which has been several times predicted.

DEPLATORY.—Apply with a brush once daily, for three or four days, a colloid to one ounce of which has been added twelve grains iodine, twenty minims castor oil, two and a half drams absolute alcohol. Upon removal of the colloid film from the skin, the hairs will come away.

EFFECTIVE BACTERICIDES.—It has been demonstrated that corrosive sublimate is inferior in its germ destroying power to Javelle water, hydrogen peroxide, and chloride of lime. These substances are most efficient when in hot solution and in the case of solution of chloride of lime it is found to be most powerful when diluted with 10 or 20 times its volume of water.

CHEMISTRY AND READING NOTICES.—Medical Record calls attention to the fact that the Lancet has equipped a laboratory, and everything is a-rist to the scientific mill therein. The Lancet publishes analyses of champagne, lager beer, bon-bons, malt, wine, tea, gin, etc., and the Record states that, curiously enough, everything analyzed and reported upon is found to be good, so that the state of mind of the Lancet's chemist is very suggestive of that described in Genesis at the end of creative work.

SUMMER COMPLAINT.—The following prescription make fresh every second day and kept in a cool place is recommended for administration in teaspoonful doses before feeding for infants 1 year old and one-half the dose for infants 6 months of age:

- Hydrochloric acid, dilute 16 minims.
- Pepsin, pure 1 dram.
- Bismuth subnitrate 2 drams.
- Syrup 2 fl. drams.
- Distilled water 16 fl. drams.

Shake the bottle before using.

RAPIDITY OF FLASH-LIGHT.—For the purpose of photographing projectiles while in rapid flight, it is necessary to have some method of illumination more rapid than the electric spark, and a new apparatus has been devised for this purpose. It consists of a mirror of steel about one inch in diameter, which is made to revolve at the rate of 1,000 times a second. The beam of light passes from this mirror across a screen at such a rate that it enables photographs to be taken in about one-tenth millionth of a second.

- SUMMER DIARRHOEA OF NURSING INFANTS.**—Toussaint (Gaz. de Hap., Med. Quar.) obtains excellent results from the use of the following mixture in summer diarrhoea in nursing infants:
 - Papain, pure 9 grains.
 - Lactic acid ½ dram.
 - Simple syrup 1½ fl. ounces.
 - Distilled water 5 fl. ounces.
 - Tincture vanilla, sufficient.

The milk given to the infant is to be limited in quantity and the intervals between feeding lengthened. After each nursing a large teaspoonful of the mixture is to be given.

THE CONGREGATE "REMEDY" FOR CONSUMPTION. This name (says N. Y. Med. J.) brings to mind those quackish "God-provided remedies," advertisements of which are almost constantly to be seen in the religious newspapers of Great Britain. Within the past year, we understand, a Congregate branch has been started in the United States, and falsely flattering advertisements have begun to crop out in our own religious journals. A published analysis tends to show that the Congregate medicines consist of an infusion of elderberries with Friar's balsam.

PARABROMTHYMOL is prepared, says G. Plancher (Gaz. Chim., Merck's Market Rep.) by dissolving 25 parts of well-dried thymol in 50 parts glacial acetic acid. The solution is cooled by being placed in cold water and then is mixed drop by drop with a solution of 25 parts each of bromine and glacial acetic acid. Then there are added 21 parts of water and a small crystal of bromothymol, when the parabromthymol will separate out in crystals. This is dissolved in soda solution, filtered, and the parabromthymol then separated by means of dilute sulphuric acid. Twenty-nine parts of product are obtained. Parabromthymol melts at from 52° to 53° C.

TO KEEP ANTS AWAY.—Rub a light film of balsam Peru around near the bottom of table or kitchen safe legs—just a narrow band will do—and renew the balsam every two or three weeks (Sci. Amer.). This will keep ants away from tables, kitchen safes, etc., and what they hold or contain, provided there is no other ant way than up the legs. One drop of balsam Peru spread around the upper part of a syrup bottle will keep the ants away for months. Boil one ounce of balsam Peru in one gallon of rain water for half an hour and sponge this water while hot over wooden floors and walls, and it will keep ants away for a long time.

DYSPEPSIA OF NURSING INFANTS.—Mathews' Medical Quarterly quotes from foreign source the following prescriptions, the object in view being to render the contents of the stomach more acid and to facilitate coagulation of the milk in the stomach:

- (1.) Hydrochloric acid..... 30 minims.
 Water 3 fl. ounces.
 Simple syrup 2½ fl. ounces.
 A teaspoonful a quarter of an hour after nursing.
- (2.) Lactic acid 15 minims.
 Hydrochloric acid 15 minims.
 Water 3 fl. ounces.
 Simple syrup 2½ fl. ounces.
 At the same time boiled or sterilized water should be used.

MEDICAL ENDORSEMENT OF SECRET REMEDIES.—Our contemporary, the Pacific Druggist, quotes from the Medical Review, published in St. Louis, some thirty-eight prescriptions manifestly intended as a guide and help to the busy practitioner in the selection of remedies for the various ailments indicated by the head lines. Every one of these thirty-eight prescriptions calls for either a patent medicine, a special formula, or preparation of some particular house, and not one of the formulas can be put up by the most competent chemist unless he buys a ready-made preparation from some manufacturing concern. The ad-

vertising pages of the medical journal in which they are published disclose advertisements of articles called for in twenty-seven of the formulas. The commentator makes some very pertinent remarks upon this singular coincidence and goes on to speak of reading notices in medical journals in not particularly flattering terms. It is to be regretted that our contemporary does not call by name a great many other medical journals which are pursuing the same course.

TOXICITY OF THE URINE OF LEPROUS.—La Reforma medica publishes an account of some experimental researches undertaken by Dr. Vicenzo Fislchello in the general pathological laboratory of Catania. The following is an epitome of the results (Br. & Col. Dr.): "1. The urine of patients affected with tuberculous leprosy is more poisonous than normal urine. 2. The degree of toxicity of this urine is in direct ratio with the gravity of the disease and the length of its duration. 3. The succession of morbid symptoms is the same as that observed when a larger quantity of normal urine is employed. 4. It is impossible to determine the exact amount of leprosy urine required to kill an animal (at so much per kilogramme of the animal's weight) on account of the different stages of the malady, and the individual sensitiveness of the rabbits, which is far from being alike, one with another. 5. If by the employment of the method of Professor Ferrarri a cure of leprosy is accomplished, the toxicity of the urine diminishes, and it returns to its normal standard."

PHENOCOLL HYDROCHLORATE is incompatible with alkalies and alkaline carbonates. Other incompatibilities are stated by George Roe as follows: With chloral hydrate it turns darker; with the acetate, bicarbonate, bromide, citrate and sulphate of potassium and benzoates or alum the mixture becomes solid; with compound tincture of cinchona or decoction of cinchona a precipitate is produced; with solution of mercuric chloride a white precipitate is thrown down; with dilute nitric and nitrohydrochloric acids it changes to a red color and deposits a large quantity of crystals. It has been prescribed with piperazin, with which, however, it becomes solid when prescribed in large doses, a difficulty which can be overcome by dispensing in small doses, thus:

- Piperazin 5 grains.
 Phenocoll hydrochlorate, 10 grains.
 Distilled water 2 fl. ounces.
 Each salt should be dissolved in one-half the water and the solutions mixed. Double the dose here given produces a decidedly incompatible mixture. With piperazin and phenocoll hydrochlorate it appears that they can be dispensed together in the ratio of 10 of the former to 15 of the latter, if some tincture, say orange, be added.

SOMATOSE is a yellowish, fine granular powder, perfectly odorless and practically tasteless. It is readily soluble in water and aqueous fluids. From this solution the albumins are precipitated by dilute acids, but redissolved by an excess of acid. When heated the aqueous solution gives no precipitate. Tannic acid, chloride of iron, sulphosalicylic acid, ferrocyanide of potassium and acetic acid give the well known reactions. The buret reaction as might be imagined, is very

marked, with a bluish color. Being a preparation of meat, somatose contains those constituents of the latter which possess nutritive value. The glutinous pepton, says Times & Register, which readily forms during peptonization of the collagenous material in muscle, is eliminated from somatose. Besides this pepton, the nitrogenous bases of meat (creatine, xanthine, etc.) are removed, but this is of no importance since these substances pass through the system unchanged, and, therefore, have no nutritive value whatever, and, at the most, may be considered as delicacies. Somatose contains no nitrogenous extractive and no fat.

INTRODUCTION OF NEW REMEDIES.—The Compulse prints a very interesting communication from Dr. S. L. Weber upon the subject of the introduction of new remedies. He sums up his statements by offering the following as the steps necessary to properly place the worthiness of a new remedy before the bulk of the profession, those who have not the time or knowledge to determine for themselves the merit of a new drug.

1. The discovery. This may be accidental, as in the case of cocaine; it may be deliberate from a knowledge of the relation of chemical structure to physiological action—as was the discovery of amyl nitrite, and, more recently, that of phenacetine; it may be the result of a deliberate search through the myriads of chemical compounds for one that should have the therapeutic effect sought for—such as resulted in the discovery of many internal antiseptics, of acetanilid and of many recent hypnotics; it may be the result of physiological experiments with newly obtained chemical combinations—such as given us apomorphine; or it may be entirely empirical and without any scientific method, such as introduced most all of the remedies until recently.

2. The announcement of the discovery, in a legitimate manner, by writing a paper upon it, giving fully all known information as to the origin, method of preparation, composition, pharmacology, chemistry, structural formula, etc., together with all experiments that led the author to form his opinions of the therapeutic value of the remedy.

3. The verification of the new remedy by a large number of competent men.

4. If found of value by these, the publication of their results in standard medical journals.

5. The spreading of the good news in current medical literature, by reviews and editorials of these journal articles and in medical societies by papers and discussions.

When the above steps have been complied with, and they always are if there is any virtue in the proposed new remedy, then, and not till then, should the rank and file of the profession use it. There is no other legitimate and scientific way of introducing a remedy to the medical profession.

Soap is being used instead of cream by the confectioners of Paris in the manufacture of cream cakes, charlotte russe, etc., and no one ever knows the difference. A quantity of the soap, dissolved in hot water is beaten to a stiff foam and then sweetened and flavored. The Paris Board of Health has ordered the practice to be stopped.

EXAMINATION QUESTIONS.

This Department is for the publication of questions and answers for our readers; the OBJECT being to place before them questions for self-examination and to indicate the directions in which study can be profitably carried on.

We **Solicit** questions to which replies are desired, particularly questions suggested by personal experience and study.

Correct Answers to the questions in each series will be published in a subsequent issue of the paper, as announced, together with the NAMES of all persons sending us correct replies.

Write the **Number** of the series at the top of your reply and write on one side of sheet only.

Address—EDITOR PHARMACEUTICAL ERA, Box 583, Detroit, Mich.

SERIES NO. 1.

Correct answers to these questions, together with the names of all persons answering correctly eight or more of them, will be published in our April 1st issue. Replies should reach us not later than March 15th, 1894.

1. Give meaning of the term evaporate, and state the difference between evaporation and distillation.
2. What is the difference between a sediment and a precipitate.
3. Give the official fluid or liquid measures, their abbreviations, and their equivalents in minims. (By "official" is understood U. S. P.)
4. What is the official thermometer? Why is mercury especially adapted for use in thermometers? Convert—10° R. into degrees temperature official standard.
5. Write a prescription for a four-ounce emulsion containing 25 per cent of castor oil. Give all the ingredients to make an agreeable and homogeneous mixture, with directions for compounding.
6. What significance is attached to the terminations ate and its in the nomenclature of salts?
7. Define fermentation. What is a ferment? Give examples (pharmacopoeial) of the products of fermentation.
8. How would you distinguish between morphine and quinine? Between corrosive sublimate and calomel?
9. Two ounces of distilled water at 15° C. will dissolve how many grains of each of the following? Potassium chlorate? Boric acid? Epsom salt?
10. State the difference between annual, biennial and perennial plants, and give an example of each.

SERIES NO. 2.

Correct answers to these questions, together with the names of all persons answering correctly eight or more of them, will be published in our April 15th issue. Replies should reach us not later than April 1st, 1894.

1. In the nomenclature of the Pharmacopoeia how are the titles of substances expressed?
2. What is effervescence? Deliquescent? Name two pharmacopoeial salts which effervesce. Two which are deliquescent.
3. Outline the official process for making syrup of wild cherry. Why is this process used? Upon what constituent does the virtue of this preparation depend? Why is glycerine used in the preparation?
4. Give the official title and the common and maximum doses of Kermes mineral, mercuric chloride, African pepper, tincture of opium, tincture of digitalis, tincture cantharides. Which are toxic, and what are the antidotes?
5. Belladonna. Give the botanical

name. Common name. Country indigenous to. What part is used? When should it be collected? What is the active principle? What is the dose of the powdered leaves? Of the principal alkaloid? Name antidote for belladonna poisoning. Name the official preparations of belladonna.

6. What do you understand by a poison? An antidote? A dose?
7. Write correctly in Latin, without abbreviation, and state the quantities of each ingredient, a formula to make one pint of an elixir, of which each fluid dram is to contain 1 grain of quinine, 1-100 grain strychnine, and 2 grains phosphate of iron.
8. Write an equation showing the reaction which occurs in the preparation of syrup iodide of iron by the official process. Spirit Mindererus. Hydrated Alumina.
9. What is the difference between a hydrocarbon and a carbohydrate? Give an example of each.
10. What is an essential oil? Name several official ones, and state their properties and dose. How would you detect the addition of alcohol to an essential oil?

SERIES NO. 3.

Correct answers to these questions, together with the names of all persons answering correctly eight or more of them, will be published in our May 1st issue. Replies should reach us not later than April 15th, 1894.

1. In what proportion must two quantities of powdered opium, containing 13.5 and 16 per cent of morphine respectively be mixed to produce 8 ounces of opium containing 14 per cent of morphine?
2. A quantity of official sulphuric acid weighs 45 grams. How many cubic centimeters does it measure? A quantity of official nitric acid measures 25 cubic centimeters. How much does it weigh in grams? In grains?
3. How would you distinguish between a root and an underground stem?
4. Which contains the larger percentage of alcohol; a solution made from equal parts by weight of alcohol and water, or one made from equal parts by measure of alcohol and water?
5. What is the percentage of bromine and how many grains of bromine are there in one ounce of potassium bromide?
8. What is an alum, chemically considered? Write the chemical symbols for two alums not containing aluminum. Name the pharmacopoeial and other varieties of alum.
7. Complete the following chemical equations:
 $Ag + HNO_3 =$
 $FeSO_4 + NaHCO_3 =$
 $KOH + I =$
8. What is meant by the following prefixes used in the nomenclature of salts: Mono, bi, bin, tri, quadri, di, bis, ter, tetra, super, hyper, per, sesqui, sub, hypo, proto, ortho, meta, pyro, para.
9. What are the chemical differences between red and yellow oxides of mercury? Give the chemical formula for each.
10. Which contains the more quinine (alkaloid), quinine bisulphate or quinine sulphate? Give the percentage of quinine in each salt and exhibit the figures used in your calculations.

Formulas Wanted.

(H. W.) "Fritt's Mixture."
 (C. D. K.) "Checini's Electric Spavin Cure."

FORMULARY AND QUESTION BOX.

The object of this department is to furnish our subscribers with reliable and tried formulas and to discuss questions relating to practical pharmacy, prescription work, dispensing difficulties, etc.

Requests for information are not acknowledged by mail and **ANSWERS COMMUNICATIONS RECEIVE NO ATTENTION.** To insure answer in the next number, queries should be in our hands *ten days* prior to the date of issue.

(Anonymous.) If K. K. will send his name and address his query will receive attention. See instructions at the head of this department.

5945. Palatable Castor Oil.

(Oneida.) W. H. Nelson, Filley, Neb., says that castor oil may be rendered palatable by simply shaking it with an equal quantity of aromatic syrup of rhubarb. It is easily dispensed and he thinks it makes a better preparation than any of the processes outlined.

5987. Tooth Paste for Collapsible Tubes.

(W. A.) See reply to query No. 5946, February 1st Era, page 110.

5988. To Remove Printers' Ink From Fabrics.

(W. E. M.) Sponge with ether or pure benzine. Oil of turpentine will also have a similar effect.

5989. Remington's Pharmacy.

(H. T. F.) The author of this work informs us that he is busily working upon a revision of it to make it conform with the 1890 Pharmacopoeia and hopes to have it in publication very shortly. We cannot give you, however, the exact date when it may be expected.

5990. Healing Ointment.

(T. B. & S.) An ointment said to resemble the one you name may be made by the following formula:

- Precipitated sulphur..... 2 parts.
- Tallow 3 parts.
- Lard 3 parts.

5991. Atfield's Chemistry.

(A. W. P.) The last or twelfth edition of this work made its appearance a few years ago before the advent of the present United States Pharmacopoeia. We understand that a new edition is under way and doubtless it will make its appearance before very long.

5992. Curious Ointment.

(N. T. W.) had no difficulty in compounding the following prescription:

- Gum euphorbat..... 1 ounce.
- Powder cantharidis..... 1 ounce.
- Merc's curious ointment 2 ounces.
- Cororr. supiment..... 1½ ounces.
- Lard 1 ounce.

Micks.
 Our correspondent inquires, however, if Merck manufactures the third ingredient in the prescription.

5993. Ants Around the Soda Fountain.

(C. D. J.) Make a powder composed of equal parts of cane sugar and tartar emetic into a thick paste with glycerine, and distribute small particles where the ants can get at it. Another scheme, recommended as a preventive for the inroads of ants, is a strip of carbolated petrolatum about half an inch in width drawn about the places frequented.

5904. Ointment Boroglyceride.

(C. A. R.) The Era Formulary gives this:

Boroglyceride 30 parts.
Glycerine 20 parts.
White wax 10 parts.
Petrolatum 60 parts.

Melt the boroglyceride with the glycerine, and add the wax previously melted with the petrolatum; stir until cold.

5905. Dental Anesthetics.

(G. E.) Last year the Era published considerable upon this subject, the preparation you name being one of those receiving consideration. See the following issues of the Era for 1893: January 15, page 61; March 1, page 205; April 15, page 351; October 1, page 298, and December 15,

5906. Liver Regulator.

(H. W. S.) Kilner is authority for the following:

Liverwort 1 ounce.
Leptandra 1 ounce.
Serpentaria 1 ounce.
Water 2½ pints.
Whiskey ½ pint.

Bring the water to a boil, and pour over the drugs; let stand 1 day, add the whiskey and strain.

5907. Numbering Machines.

(A. W. 19) There are several such machines on the market. We have been using one known as the Bates Numbering Machine in this office and have found it very serviceable in the various kinds of work where such a machine is necessary. This machine will print numbers in duplicate, changing automatically after producing each set, and will also print consecutive numbers or repeat the same number indefinitely. Whitall, Tatum & Co. are selling it, and may be addressed at 410 Race street, Philadelphia, Pa.

5908. Books on Poultry.

(A. W. P.) The most comprehensive book that we know of is Wright's "Practical Poultry Keeper." It is a very complete and a standard guide on the management of poultry either for domestic use, the markets or exhibition; price \$2. You will also be able to find considerable information upon the subject in Jennings' "Swine, Sheep and Poultry." This book treats on the subject of breeding, management, disease, etc. Price \$1.25.

5909. Books on Veterinary Surgery and Practice.

(A. W. P.) The following books upon the subject are recommended by various veterinarians: Courtney, "Manual of Veterinary Medicine and Surgery," price \$3.50; Fleming, "Operative Veterinary Surgery" part 1., price \$3.50. This is a very practical work and is devoted to the common operations of veterinary surgery. A second volume is expected very soon. Gresswell, "Manual on the Theory and Practice of Equine Medicine," price \$3.50, and Williams' "Principles and Practice of Veterinary Surgery," price \$4.50, are also both good books. Any or all of these books may be obtained from this office.

6000. Myrtle Wax.

(W. D.) is a solid vegetable fat obtained by pressure from the berries of the wax-myrtle or bayberry (*Myrica cerifera*), an indigenous shrub growing along the shores of the Great Lakes and the Atlantic coast of North America. The wax has a

balsamic odor, is harder and more brittle than beeswax, varies in color between green, yellowish and gray, and breaks with a shallow conchoidal fracture. It has a specific gravity of 1.065 at 15° C., and fuses at 45 to 46° C. It is used as a substitute for beeswax and particularly in candle making.

6001. Liquid Bluing That Will Not Freeze.

(Laundry.) So far as we are aware there is nothing which can be added to a liquid bluing to prevent its freezing. Glycerine naturally suggests itself, but it is a question whether such an addition would be desirable. The increase in cost with glycerine added would seem to far exceed the expense of the small amount of care necessary to protect the bluing from freezing. We would like the opinion of our readers upon this subject.

6002. Foam for Hair Tonic.

(M. H. K.) The readiest agent to produce a good lather upon the hair of the head is a solution of potassa or soda or a dilute water of ammonia. The latter, however, owing to its penetrating odor is not usually liked. As you have not seen fit to enlighten us as to the composition of your preparation, we cannot say whether the addition of either of the substances named would be admissible or not. Other saponaceous substances like solution of soap, tincture of soap bark, etc., either singly or in combination, are also suggested.

6003. Non-Alcoholic Calentula.

(I. H. K.) A preparation of calentula which represents all the water soluble constituents of the drug may be made as follows:

Calentula (flowering herb) in No. 40 powder 16 fl. ounces.
Alcohol, a sufficiency... 1 part.
Water, a sufficiency... 2 parts.
Glycerine 8 fl. ounces.

Moisten the drugs with a sufficient amount of the menstruum and allow to macerate in a percolator for 12 hours; then percolate to exhaustion with the menstruum, recovering the alcohol by distillation, and evaporate the remaining solution to 8 fluid ounces, finally adding the glycerine and mixing thoroughly.

6004. Balsam of Fir and Spirit Nitrous Ether in a Prescription.

(L. E. H.) Criticism is asked upon this prescription:

Balsam fir..... 1 ounce.
Camphor gum..... 2 drams.
Oil of turpentine..... 2 drams.
Spirit nitrous ether,
enough to make..... 4 ounces.

The color changes you have observed in compounding this prescription are due to the decomposition of the spirit of nitrous ether in combination with the balsam of fir. The mixture changes through the various shades of color, from a pale, light green to a deep red. This change is accompanied by the evolution of gas and the formation of nitrogen compounds of variable composition.

6005. Extract Viburnum Compound.

(C. A. D.) There are any number of formulas for preparations similar to that you name. Besides referring you to formula No. 107 in the National Formulary we append this one:

Ground cramp bark..... 1 ounce.

Scullcap ½ ounce.
Wild yam 1 ounce.
Ground clover 1 ounce.
Ground cinnamon..... 1 ounce.

Mix and macerate in 12 ounces of 76 per cent alcohol from one to three days, then filter and add enough tincture of cinnamon to make 16 ounces.

6006. Syrup Ferrous Iodide and Potassium Iodide in a Prescription.

(W. M. H.) says in mixing a solution of 2 ounces of potassium iodide in 2 ounces of water with 2 ounces of syrup iodide of iron he obtained a solution which became green colored. He wants to know the cause of it. We doubt very much whether our correspondent used a syrup iodide of iron conforming to the standard and tests of the pharmacopoeial preparation. If he had, and had also used potassium iodide conforming to the pharmacopoeial standard, in distilled water, he would have observed no change of color in the liquids when mixed. The mixture should be of a greenish color. So should the syrup iodide of iron.

6007. Formulary for Druggists.

(I. P.) We know of no better work than the Era Formulary. This book contains 5,000 formulas and furnishes a collection covering those branches of work which pertain to both the professional and mercantile calling of pharmacy. A great number of the formulas are original contributions to these columns and were devised by practical and experienced pharmacists. It also contains many new and tried formulas never before published in addition to those selected from other authoritative sources, including standard authorities in the French and German, as well as a great variety of English publications. Of course, there are many other formula books, good ones, too, along special lines, but as a rule such books are not available to the average druggist. Of the books containing formulas designed for the druggist's use, most of them contain either all or in part the formulas and processes of the Pharmacopoeia and the National Formulary. These formulas have been intentionally omitted from the Era Formulary, for it is assumed that every well equipped pharmacy is already supplied with these standard publications. A glance at the general table of contents presented in the advertising pages of this issue will give you an idea of the character and scope of the work. It is a thoroughly practical work.

6008. Family Liniment.

(H. P.) Try one of the following:

(1.)
Soap liniment..... 1½ ounces.
Tincture capsicum..... ¼ ounce.
Aqua ammonia..... ¼ ounce.
Alcohol ½ ounce.

(2.)
Oil of cloves..... 1 dram.
Oil of saffras..... 2 ounces.
Spirit camphor, enough
to make..... 4 ounces.

(3.) Magnetic Liniment.

Oil turpentine..... 9 ounces.
Tincture capsicum..... 12 ounces.
Spirit camphor..... 96 ounces.
Stronger water ammonia 9 ounces.
Alcohol 15 ounces.
Oil saffras..... ¼ ounce.

The Era Formulary gives this formula for Popular Liniment.

- (4.)
 Tincture capsicum..... 2 parts.
 Tincture myrrh..... 2 parts.
 Tincture opium..... 2 parts.
 Tincture guaiac..... 1 part.
 Spirit camphor..... 8 parts.

6009. Deodorizing Recovered Alcohol.

(Carbon.) asks for a process to deodorize alcohol recovered by distillation from the marc in the manufacture of fluid extract of buchu. A great many schemes have been proposed for the purpose, such as repeated distillations with permanganate of potassium and other oxidizing agents similar to those given in the processes for preparing cologne spirit in another column. These processes work very well with the alcohol recovered in the manufacture of most of the fluid extracts, but it has been found to be nearly impossible from the standpoint of economy, to completely deodorize an alcohol recovered in the manufacture of fluid extract of buchu, cubeba, etc. These drugs contain pungent volatile oils, with an intense penetrating odor clinging to the alcohol with great persistence even after repeated distillations. Alcohol so recovered is almost hopelessly contaminated and is only fit to be employed in the next operation with the same drug, or to be used as the solvent in the manufacture of preparations, such as liniments or other applications where the odor does not interfere.

6010. Grease Face Paints.

(C. H. B.)

(1.) White.

- Prepared chalk..... 80 parts.
 Zinc white..... 80 parts.
 Bismuth subnitrate..... 80 parts.
 Asbestos..... 80 parts.
 Oil of sweet almonds,
 about..... 50 parts.
 Camphor..... 2 parts.
 Oil of peppermint..... 10 parts.
 Extract of ess. bouquet... 10 parts.

(2.) Pink.

- Zinc white..... 1,000 parts.
 Bismuth subnitrate..... 1,000 parts.
 Asbestos..... 1,000 parts.
 Oil of sweet almonds,
 about..... 400 parts.
 Camphor..... 220 parts.
 Oil of peppermint..... 220 parts.
 Extract of ess. bouquet. 100 parts.
 Eosin..... 4 parts.

(3.) Dark Red.

Same as above, coloring with ammonia solution of carmine.

(4.) Flesh.

- Prepared chalk..... 200 parts
 Zinc white..... 200 parts.
 Orris root..... 50 parts.
 Cinnabar..... 30 parts.
 Oil of sweet almonds,
 about..... 60 parts.
 Camphor..... 3 parts.
 Oil peppermint..... 3 parts.
 Tincture of crocus..... 20 parts.
 Extract of ess. bouquet.. 15 parts.

(5.) Nigger Black.

Beat the finest lampblack into a stiff paste with glycerine, and apply with a sponge; if necessary mix a little water with it when using. Easily removed.

A large collection of formulas for face paints may be found in the Era Formulary, pages 156 and 157.

6011. Poultice Powder.

(F. W. C.)

- Powdered mustard..... 20 ounces.
 Powdered foenugreek..... 15 ounces.
 Ground oyster shells..... 12 ounces.
 Ground bone..... 8 ounces.
 Powdered sodium sulphate..... 4 ounces.
 Powdered capsicum..... 10 ounces.
 Sulphate of antimony..... 10 ounces.
 Oxide of iron..... 10 ounces.
 Corn flour..... 20 ounces.
 Powdered asofoetida..... 1 ounce.

(2.) Powder to Make Hens Lay.

- Egg shells, powdered..... 4 ounces.
 Sulphate of iron, powdered 4 ounces.
 Capsicum, powdered..... 4 ounces.
 Foenugreek, powdered.... 2 ounces.
 Black pepper, powdered... 1 ounce.
 Silver sand..... 2 ounces.
 Dog biscuit, powdered... 6 ounces.

Mix. A tablespoonful to be mixed with sufficient meal or porridge to feed 20 hens. See also formulas Nos. 2668, 2670 and 2672 in the Era Formulary.

6012. Elixir Pancreatin, Pepsin and Bismuth.

(F. W. C.) The particular formula you desire is not available. The following, however, may be of service to you:

- Pancreatin..... 256 grains.
 Pepsin..... 256 grains.
 Glycerine..... 4 ounces.
 Elixir, enough to make.. 1 pint.

Macerate the powders for 24 hours or longer in the elixir and glycerine, and filter. In the filtrate dissolve 61 grains citrate of bismuth and ammonium and 1½ grains sulphate of strychnine. Each fluid dram of this elixir contains 2 grains each pancreatin and pepsin, ½ grain citrate of bismuth and ammonium, and 1-100 grain of strychnine. You may also prepare an elixir containing the above named ingredients by dissolving the desired quantity of pancreatin in the elixir of pepsin, bismuth and strychnine of the National Formulary.

6013. Distinction Between Contagion and Infection.

(W. D.) These words have been used in very diverse senses; but in general, a contagious disease has been considered as one which is caught from another by contact, by the breath, by body effluvia, etc.; while an infectious disease supposes some entirely different cause acting by a hidden influence, like the miasmi of prison ships, of marshes, etc., infecting the system with disease. Webster's dictionary states that this distinction, though not universally admitted by medical men, as to the literal meaning of the words, certainly applies to them in their figurative use. Thus we speak of the contagious influence of evil associates, the contagion of bad example, the contagion of fear, etc., when we refer to transmission by proximity or contact. On the other hand, we speak of infection by bad principles, etc., when we consider anything as diffused abroad by some hidden influence. As examples of contagious diseases may be mentioned cholera, small-pox, etc., while measles, scarlet fever, etc., have been considered infectious diseases.

6014. Compound Solution of Ammonium Acetate.

(P. P.) We are not aware of the existence of a formula under this title. It may be that the prescriber intended the concentrated solution of ammonium acetate of the British Pharmacopoeia from which

that work directs the solution of ammonium acetate to be made. Of course, this is only conjecture. It may be also that the prescriber had some private formula under the title which he wanted dispensed. Here are two formulas of combinations in which solution of ammonium acetate is used:

(1.)

- Solution ammonium acetate..... 6 drams.
 Tincture opium, camphorated..... 1 dram.
 Spirit nitrous ether..... 1 dram.
 Syrup tolu..... 1 dram.
 Water..... 2 ounces.

(2.)

- Solution ammonium acetate..... 2 fl. ounces.
 Cinnamon water..... 1 fl. ounce.
 Antimonial wine..... 1 fl. dram.
 Distilled water..... 2 fl. ounces.
 A tablespoonful every two or three hours.

6015. Elixir Orange Compound.

(A. G.) We can suggest no better formula than that given in the National Formulary. However, here is a formula very similar to that given in the work named, and which was formerly official in the German Pharmacopoeia:

- Orange peel, cut..... 50 parts.
 Cinnamon..... 10 parts.
 Potassium carbonate.... 2½ parts.
 Sherry wine..... 250 parts.
 Extract gentian..... 5 parts.
 Extract wormwood..... 5 parts.
 Extract buckbean..... 5 parts.
 Extract cascarilla..... 5 parts.

Macerate the orange, cinnamon and potassium carbonate for 8 days in the wine, pour off, express, and dissolve the extracts in the liquid.

Here is another formula presented to the American Pharmaceutical Association in 1889 by R. W. Gardner under the same title:

- Tincture of orange peel.. 5 ounces.
 Curacao flavor (cordial). 5 ounces.
 Orange flower water.... 3 ounces.
 Syrup..... 26 ounces.
 Alcohol..... 26 ounces.
 Precipitated phosphate of lime, quantity sufficient.
 Water enough to complete..... 8 pints.

6016. Decolorized Tincture of Iodine.

(L. E. B.) A decolorized tincture of iodine does not contain free iodine. Iodine, if free, always retains its characteristic color and odor, whether dry or in solution. When these have disappeared you may safely assume that the iodine has entered into some combination. The process you name is essentially that of the National Formulary, with the exception that you use tincture of iodine instead of iodine. The reaction which occurs would be somewhat difficult to express by a chemical equation, but the finished solution contains ammonium iodide, ethyl iodide, triethylamine iodide, together with sodium iodide, sulphate, and tetrathionate. A crystalline precipitate of the last named salt is apt to form upon standing for some time. Decolorized tincture of iodine is by no means as powerful a counter-irritant as the original tincture and, though it possesses some valuable properties, it would seem to be of no more value as a local discutient than a solution of iodide of sodium or ammonium in water.

6017. Lanoline Cold Cream.

(J. W. O.)

(1.)

Anhydrous lanoline	10 parts.
Benzoated lard	20 parts.
Rose water	20 parts.

(2.)

Lanolin	4 drams.
Powdered soap	2 drams.
Spirit bergamot (1 to 16)	2 fl. drams.
Rose water	4 fl. ounces.

(3.)

The Era Formulary gives this: White wax, 2 ounces, spermaceti, 2 ounces; oil of sweet almond, 14 fluid ounces. Melt together and add lanolin, 6 ounces; stir until nearly cold, adding gradually a solution of borax (75 grains) in water, 9 fluid ounces. Perfume with.

Oil bergamot	15 minims.
Oil rose	15 minims.
Oil neroli	10 drops.
Oil ylang ylang	2 drops.
Oil orris	1 drop.
Tincture musk	5 drops.
Coumarin	¼ grain.
Vanillin	3 grains.

The coumarin and vanillin should be dissolved in a little oil of sweet almond.

6018. Bleaching a Linen Duster.

(J. A. W.)

Twelvetree's process for whitening linen orders 8 ounces each of good soap and soda, 3 ounces of unslaked lime, and 1 gallon of boiling water; mix all well together and let stand for twelve hours. Decant the clear solution into a pot containing 10 gallons of boiling water, being careful that all sediment is left behind. In this solution boil the garment for about half an hour, take out, scald, blue, rinse in soft water and dry.

The bleaching may also be accomplished by means of a solution of chlorinated lime. The powder is stirred up with water, and the clear solution used. Just how strong this solution needs to be can only be determined by experience, as the chlorine evolved is more or less injurious to the fabric. Another preparation and a very efficient bleaching agent is peroxide of hydrogen. For remarks upon its use see Era, February 1, 1893, page 109, and Era of March 15, 1893, page 215.

6019. Rangoon Oil.

(W. D.)

You state that this preparation is one which you have found of use as a lubricant for rifles, etc. We are inclined to think that Rangoon tar or Rangoon petroleum is the product sought, particularly as petroleum finds very satisfactory application to rifle barrels as a protection from rust. Rangoon petroleum is of a nearly liquid consistence, of greenish-brown color, and is found in deposit in Burmah. Very probably a request for Rangoon oil in the American market would be supplied with an American petroleum in some form. The following process is used for cleaning guns with petroleum: Some tow is wrapped around the ramrod and enough petroleum poured upon it to thoroughly moisten it and the barrel rubbed out thoroughly with this swab. Then it is well to follow with a brush of stiff bristles also moistened with petroleum and then repeat the first operation, continuing the rubbing as long as the tow comes out soiled. Petroleum is a great enemy to water, covering the gun barrel with a thin film which effectually keeps away moisture, but you should observe care that a good grade of petroleum is employed, and also that it does not come in contact with the polished stock.

6020. Cholera Remedies.

(H. P.) The formula you name is thus given by the New Idea:

Tincture capsicum	1 ounce.
Spirit camphor	¾ ounce.
Tincture guaiacum	¾ ounce.

Color tincture, quantity sufficient.
Formulas for Squibb's Cholera Mixture, Thielemann's Cholera Drops, Loomis' Diarrhoea Mixture and two or three other well-known preparations may be found under cholera mixtures in the National Formulary, page 88. Here are two more formulas from the Era Formulary:

(1.) Aromatic tincture	40 parts.
Acetic ether	9 parts.
Oil peppermint	1 part.

(2.) Russian Cholera Drops.

Tincture opium	75 minims.
Tincture nux vomica	15 minims.
Tincture valerian	2½ drams.
Oil peppermint	3 drops.

Dose, 25 to 30 drops every hour or two, alone or in peppermint water.

6021. Mixture for Epilepsy.

(H. E. H.) A careful search has failed to reveal the formula you ask. The following formulas are types of the remedies used in the treatment of epilepsy: Brown-Sequard, Paris.

Ammonium bromide	8 drams.
Potassium iodide	8 drams.
Potassium bromide	6 drams.
Sodium bicarbonate	2 drams.
Tincture columbo	2 ounces.
Distilled water	6 ounces.

Take a dessertspoonful after each meal, and a tablespoonful at bedtime.

Prof. Bartholow, Philadelphia, prescribes this:

Sodium bromide	6 drams.
Potassium bromide	6 drams.
Solution potassium arsenite	1 dram.
Tincture columbo	3 ounces.
Syrup ginger, enough to make	6 ounces.

Dessertspoonful after meals and at bedtime.

Hager gives this:

Borax	20.0 grams.
Potassium bromide	10.0 grams.
Glycerine	25.0 grams.
Ether	1.0 grams.
Oil peppermint	0.15 grams.
Tincture cinnamon	5.0 grams.
Distilled water	350.0 grams.

6022. Cologne Spirit.

(Druggist.) Cologne Spirit as ordinarily understood is the highest grade of alcohol, having been so purified as to be devoid of all color and odor. Any number of processes have been suggested for this purpose, but none of them seems to produce the desired quality of alcohol, unless used in connection with distillation. The process of purification by means of permanganate of potassium, and afterwards filtering through charcoal, will no doubt remove much foreign matter, if present, but it will not so completely deodorize the spirits, as would subsequent distillation. In fact this method is made use of in the well known Atwood's "patent" process for the purification of alcohol by distillation over manganic acid or permanganate of potassium or sodium, which substances are used to destroy the fusel oil and other foreign substances in the alcohol. Another process for deodorizing alcohol, consists in adding to each barrel of the spirit a gallon of water saturated with chlorine gas; agitate thoroughly, let it stand for 12 hours, then saturate with

chalk (which, combining with the chlorine, forms chloride of lime), and distill. Filtering through animal charcoal after precipitating with the chalk affords, as in the case of the permanganate, only a fair substitute for the redistilled alcohol. The fusel oil can be separated from alcohol, in small quantity, by adding a few drops of olive oil and thoroughly agitating in a bottle and allowing it to settle, and then decant. The olive oil combines with and retains the fusel oil. It is said that alcohol distilled over soap loses its empyreumatic odor and taste entirely. At about 25° F., the soap ceases to retain the alcohol and the empyreumatic oil at that temperature remains in combination with the soap, which forms the residuum of the distillation. The oil is then carried off at a higher temperature by the watery vapor, which is formed during a second distillation, the product of which is soap free from empyreuma, and is fit to be used again for a similar process. In all of these cases the alcoholic strength must be estimated and adjusted after distillation.

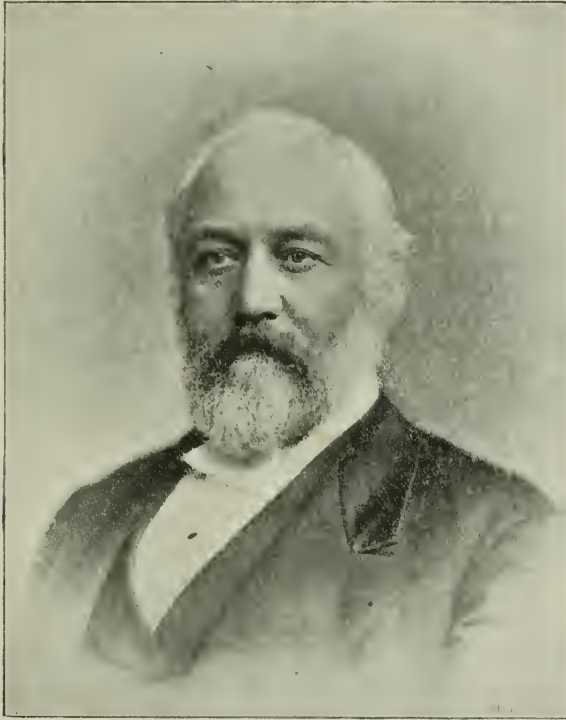
6023. Solution of Magnesium Citrate.

(J. W. O.)

The principal objection to the pharmacopoeial method of 1880 was that the citrate of magnesium crystallized out, which rendered the solution almost unfit for use. A number of processes have been proposed but there seems to be objections to each one of them. The United States Pharmacopoeia of 1890 increased the quantities of magnesium carbonate and citric acid, but not the relative proportions, so that it is doubtful whether this solution will keep any better than that of 1880. The official solution contains a mixture of acid and normal salts, to which its instability may be ascribed. If a solution of acid magnesium citrate only is desired which will not deposit in the course of time, the quantity of citric acid in the official formula must be increased to 32.98 grams, which includes the necessary amount of acid to supply the deficiency in the syrup. This method, however, produces a very acid liquid, and may be objected to by many persons on that account.

It may be noted that the pharmacopoeia orders plain water to be used, but if the official solution or, indeed, any solution is to be kept on hand, distilled, or better yet, recently boiled and filtered water will be found to be preferable so as to avoid the formation of fungi. The following modification of the pharmacopoeial method has been recommended: Follow the pharmacopoeial method, replace the bulky magnesium carbonate by one-half of the quantity of Jennings' light calcined magnesia. The syrup of citric acid should be introduced into the bottle, and the filtered solution of magnesium citrate very carefully poured in without stirring up the syrup. The potassium bicarbonate, in large crystals, is dropped into the bottle—they gradually dissolve in the syrup of citric acid—and the cork is at once inserted to prevent the loss of carbonic acid gas. The bottle is not disturbed till it is called for, when a vigorous shake mixes the solution of the bicarbonate in the bottom of the bottle with the acid of the liquid above, liberating the carbonic acid gas, and the solution can then always be dispensed in a sparkling condition.

See also Era Formulary, where may be found formulas for six additional processes.



EDMUND A. CRENSHAW.

EDMUND A. CRENSHAW, of the wholesale drug firm of Bullock & Crenshaw, Philadelphia, deceased on the morning of February 19 at his residence in Germantown, a heavy cold contracted on the 14th inst. resulted in pneumonia, terminating his life. He was born in Hanover Co., Virginia, in 1827. His father, Nathaniel Crenshaw, was a prominent member and minister in the Society of Friends, who, after uniting himself with the Friends, liberated all the slaves who came to him by inheritance and brought them to Pennsylvania and saw them comfortably settled as free men.

Edmund A. Crenshaw received his early education at Westtown Boarding School, and subsequently graduated at Haverford College. In 1846 he entered the store of Smith & Hodgson at the northeast corner of Sixth and Arch streets, Philadel-

phia, to learn the drug business. This business house had been established by Daniel B. Smith in 1819. In 1849 he graduated at the Philadelphia College of Pharmacy, and in the same year, in connection with Charles Bullock, succeeded Smith & Hodgson and continued the business at the old stand until 1858, when the firm of Bullock & Crenshaw removed to 528 Arch street.

Mr. Crenshaw was for a number of years a member of the vestry of St. Andrew's Church, during the rectorship of the Rev. W. Bacon Stevens. After removing his residence to Germantown he became a member of the vestry of Christ Church, and subsequently was one of the corporate members of St. Peter's Church on Wayne street, and held the office of accounting warden from its institution.

Coming, as Mr. Crenshaw did, from boyhood to manhood under the best of influ-

ences, and inclined, as he was, to regard the precepts and follow the example of those who had his training in charge, nothing could follow more naturally than an upright life; and such, assuredly, was his. His commanding presence distinguished him among men, while the dignity, courtesy and gentleness of his demeanor made him equally conspicuous among his fellows. In the church, in his business affairs, in his domestic relations and in his social intercourse he was equally respected and beloved by all whose privilege it was to know him. It was less than a week before his death, when he was in his usual good health, that his fellow-members of the Philadelphia Drug Exchange elected him an honorary member of that association as a token of the very high esteem in which he was held by that body.

NEWS COMMENT.

A New London, Ind., druggist has pending against him eleven charges of illegal liquor selling.

Considerable poor and adulterated opium is being rejected by the inspectors in the New York customs house.

The New York State Board of Health, in its annual report, finds a decided improvement in the quality of drugs.

Sacramento, Cal., druggists are being required to toe the mark a little more closely in regard to selling liquor.

C. P. Ochsner, a St. Louis druggist, mourns the loss of \$300, stolen by his storeboy. As yet the thief has not been caught.

The stocks of some of the drug stores in the interior towns in New York are being examined by the state analysts at Albany.

A number of gold watches and other jewelry, but no drugs, were stolen from Henslee & Myatt, Dixon, Tenn., recently by burglars.

It is said that an unusual number of "strikes" against patent medicine concerns and other large industries are being engineered in the New York Legislature at Albany.

A Pittsburg chemist says he can make chloroform from natural gas, and is trying to organize a company to establish its manufacture.

A Tennessee countryman mistook a druggist's soda fountain for a beer pump, and wanted a glass drawn without too much foam on it.

Miss Jennie Entrekien, of Coffeen, Mo., has just been registered by the board of pharmacy, and is the only lady pharmacist in that section.

A striking evidence of the hard times is the fact that druggists are besought by beggars to furnish cathartic pills and other medicines as an act of charity.

A time clock owned by a New Jersey druggist got loose the other day and did many dollars' worth of damage to shelf-ware and stock before he was captured.

A drug clerk in Brazil, Ind., aged 21 years, was married the other day to a widow twice his age. He finds a family of children to whom he is to act as father.

The Boston Medical Co. has been incorporated at San Francisco, Cal., by John Bamber, A. Sifford, C. H. Powers, L. B. Caldwell and R. P. Clement. The capital stock is \$50,000.

Druggist S. F. Boyce, of Duluth, Minn., has been sorely afflicted through the death of his wife from typhoid fever on February 10. The heartiest sympathies of his friends are extended.

The Pacific Druggist Publishing Company, of San Francisco, has been incorporated with a capital stock of \$15,000. The directors are R. M. Wood, Jennie E. Scott, Winfield Scott, A. C. Bonnell and G. M. Wilde.

Druggist H. C. Giesler, of Fulton, N. Y., has recently refitted his store in quartered oak, handsomely carved, and with liberal use of plate glass. Whitall, Tatum & Co. supplied the recess label shelf bottles.

A St. Paul resident wanted a drink of whiskey and helped himself in a drug store, but, unfortunately, he took a drink of landanum instead of the spirits he desired, and his life was saved only after great exertion. He will get a regular physician's prescription hereafter.

The American Glucose Co.'s plant at Buffalo was damaged \$10,000 by fire February 15, but complete destruction was averted by the hard work of the firemen.

W. H. Nelson, a druggist of Sioux Falls, S. D., who failed a few months ago, is having his affairs investigated by creditors, who claim that certain transfers of property were made with a view to defrauding them.

A. H. Luckenbach, druggist of Oconto, Wis., has been away on an extensive trip to southern cities. In comparison with the affairs of brother druggists in other cities, he finds the success he has achieved very satisfactory.

The drug store of Walter H. Johnston, at San Jose, Cal., was damaged by fire to the extent of \$2,000 on the stock of which there is an insurance of \$3,000. The chemicals in the laboratory are supposed to have caused the fire.

The driver of an express wagon in Buffalo, while delivering a package at a drug house, helped himself to a double handful of cathartic pills from an open package. He says he will be more careful next time what he fills up on.

"A rate war in patent medicines is on at Parsons, Kas., and you can get relieved 'that tired feeling,' 'those pains in the back,' the 'feeling of goneness' and 'coughs, colds, fevers and headaches' for fifty cents a bottle," says an editorial paragrapher in the Kansas City Star.

Whitall, Tatum & Co. have sold, through their traveler, E. P. M. De Camp, a full new set of shelfware, show bottles, etc., to Chaffee & Merckel, who succeed A. Mullock, the Binghamton, N. Y., druggist, who was recently burned out. The new stock is to be furnished by Corbin, Sons & Co., Binghamton.

The Kansas City Star says: A lawyer at Charleston, Mo., has received a letter from a Kentucky party who wants to go into the "practis of medison," and wishes to know what he must do before he can sell drugs and "handle whiskey" in the "State of Mosura." The sick and afflicted should look out for him.

Rochester, N. Y., druggists are making a strong fight against the one or two cut-rate stores in that city, and the latter are finding it very hard to secure supplies. The papers profit from the agitation, and we are in receipt of long clippings from them wherein the cutters make their customary address to the public. Some correspondents tell us that the cutters have to pay thirty cents a line for this class of advertising.

The Wholesale Drug Trade Bowling Association is holding a tournament at 409 Pearl street, New York City. Teams from the various jobbing houses compete. The first games were played February 17, and both were won by Whitall, Tatum & Co. Dates set for matches are February 24, March 3, 10, 17, 24 and 31 and April 7. The schedule arranged shows that some of the best men in the trade will come into active competition.

UNITED STATES DISPENSARY.

The publishers of this work state that the insertion of important comments upon recent researches in the new or 17th edition, compels them to delay its issue until March 20. On account of its greatly increased value, the physician and pharmacist will reap a benefit which will completely offset any inconvenience that may have been suffered by the delay.

OBITUARY.

Samuel Kidder, one of the best known and most highly respected citizens and a retired druggist of Lowell, Mass., died at the age of 72 years on February 15.

H. R. Woodward, of Allaire, Woodward & Co., Peoria, Ill., died in that city February 10 after an illness of several months' duration. He was an influential business man, and was prominently identified with the affairs of the city. Besides his drug connections he held a controlling interest in the city's street railway system, and exercised an influential power in other public enterprises. He was 52 years of age.

Joseph I. Younglove, the well known druggist of Bowling Green, Ky., died February 1 of cancer of the stomach, from which he had suffered for some time. He was born in 1818 at Johnstown, N. Y., and was consequently in the 76th year of his age. Since the age of 14 he had followed pharmacy, serving in various cities in New York, Pennsylvania and last in Louisville, He established himself in Bowling Green in 1842.

William H. Webb, one of the best known of the Philadelphia pharmaceutical fraternity, died at his residence, 1426 North Twenty-sixth street, February 9, aged about 70 years. Mr. Webb was born at York, Pa., on September 6, 1824, where he was educated. When about to begin work as a young man he removed to Baltimore and learned the drug business. Being of Quaker family it was natural that Mr. Webb should before long come to Philadelphia. He secured a position and in 1845 graduated from the Philadelphia College of Pharmacy, and then started in business for himself at Spring Garden and Tenth streets. Mr. Webb was elected a member of the College of Pharmacy in 1857, and in 1872 became a member of the Board of Trustees. In 1880 he succeeded Mr. Bunting as treasurer of that institution. He was active as one of the managers of the Friends' meeting and of the Jesse George Industrial School.

John G. Fratz, the veteran druggist and founder of the Cincinnati College of Pharmacy, died at Cincinnati of the 20th inst. The deceased was one of the best known druggists in Ohio and was a man of many admirable attributes. He was born in this city on West Eighth street, September 25, 1841. He studied medicine for awhile with Dr. Alexander, who had an office at Baymiller and Central avenue. He then secured a position as drug clerk with Anthony Hiller, a druggist at Pearl and Broadway. After serving his apprenticeship employment was given him in the drug store of Gustav Zirkhoff at Baymiller and George streets, and, at the proprietor's death Mr. Fratz purchased the store and remained there until 1870, when he moved his business to the opposite corner where he subsequently did a thriving business.

In 1877 Mr. Fratz was elected court treasurer. He was also a member of the Board of Health and afterward founded the Cincinnati College of Pharmacy. He was a leading member of the Catholic Knights of America and was also identified with a number of social organizations. He was a power in the ranks of the local Democracy and was always

consulted in momentous questions which had a tendency to affect his party. Mr. Fratz was undoubtedly one of the best known men in this city.

In the west end, where Mr. Fratz's pharmacy was located, he was known as a friend of the poor. Whenever sickness entered any of the homes of the poverty-stricken Mr. Fratz enjoined the afflicted ones not to hesitate in coming to his store to get the necessary medicine. Mr. Fratz was one of the best learned pharmacists in Southern Ohio, and a devoted patron of art. In his residence are many paintings and etchings, the handiwork of some of the most noted artists of Europe. Mr. Fratz carried life insurance amounting to \$30,000. His son will conduct the store made famous by his father.

GERMAN UNIVERSITY NOTES.

The call of Prof. Zacharias, extraordinary professor of botany at Strassburg, to the Botanical Gardens of Hamburg is a sad blow to the university. Certainly no teacher in the natural science faculty was more attached to his students than he, while it will be difficult to obtain a more gifted and enthusiastic conductor of the numerous botanical excursions. Zacharias is possessed of remarkable organizing ability which he demonstrated in the revival of the "Philomatic Society" of Alsace-Lorraine, when, in the capacity of president, he brought the membership up to over 300 in nine months, after it had been forgotten for two years.

Prof. Ernst von Meyer, of Leipzig, has been appointed professor of organic chemistry at the Dresden Polytechnicum.

Dr. G. Linck, of Strassburg University, has been made professor of petrography. The excellent physiological chemist, Prof. E. Drechsel, formerly director of the chemical laboratories of the Physiological Institute of Leipzig University, has been made professor of physiological chemistry and pharmacology at the University of Berne.

The protracted illness of the American, Dr. Richard Marburg, privat-docent in organic chemistry at the Strassburg University, necessitated his resignation and the call of Dr. Erlenmeyer of the University of Bonn in his stead.

The Columbian Exposition had the effect of bringing many American students home from Europe, and now there is a universal scarcity as compared with a year ago.

J. E. Groeck, for many years assistant at the Pharmaceutical Institute in Strassburg, has opened a pharmacy in Strassburg-Neudorf.

The government of New Zealand has decided to offer a bounty of \$10 upon every 100 tons of starch manufactured in the colony during 1894 and 1895.

A sanguine individual down in Ohio thinks he has figured out a way to end the drug-store-saloon business. He suggests that a law be passed providing that where local option is in effect druggists shall not sell whisky in quantity less than one gallon and that where physicians prescribe liquor they shall furnish it themselves. Assuredly this would stop the drug store saloon, but how about the tidy little business that the physician would pick up?

NEW YORK.

New York, February 26.—It is no secret that the increase of N. W. D. A. dues from \$10 to \$25 has created considerable talk among the members of that organization in this city. More than that, it has caused the resignation of quite a number of gentlemen who had previously felt that to belong to the N. W. D. A. was well worth the small sum required as dues. The reason for the increase in dues is well known, apparently, being stated at the last meeting of the organization. No one seems to think that the reason was not a good and sufficient one, but it is true that something will have to be done at the next meeting to keep several men in the fold, reason or no reason. These gentlemen who have felt called upon to withdraw are the ones the N. W. D. A. ought not to lose. They may have nothing to do with the hard work, may not shape legislation or prove potent factors for the welfare of the association, but they are the men who help to make the meetings of the N. W. D. A. enjoyable, and as such are always welcome.

It was put to the Era correspondent to-day in this way. A member of the association, whose business is such that no legislation by or through the N. W. D. A. can possibly affect it, considers the meetings as simply occasions when he can meet his fellows socially, shake hands with those he has not seen for a little while, renew old acquaintances, in fact, a sort of outing for which he was quite willing to pay the \$10.

To raise that man's dues to \$25 was to cause him to do a little thinking, and the result was that he decided that the \$25 could be spent to much greater advantage. The names of those who have sent in their resignations would show quite a number of this class. All may yet be well, however. It is given out on good authority that all of the gentlemen who have sent in their resignations have been asked to let their papers lie unacted upon until the next meeting of the association, which is to take place in this city. Then it is certain that the matter will be adjusted. "The general sentiment seems to be," said one interested member of the N. W. D. A., "that there should be a distinction made between the fees of associate and other members. The fees for associate members should be put back at the old figure, \$10; but that will all be fixed at the next meeting." The date for the N. W. D. A. meeting has not yet been fixed, but it will be held between the 15th of September and the 15th of October; some time about the 1st of October.

If you see a drug trade man going along the street with his gaze directed to the sky, you may be sure he is one of those schemers who are just now getting up a corner in opium. There is said to be a formidable combine now at work, at the head of which is a gentleman well known in the proprietary medicine line. If the members of this syndicate think there is one wide-awake man who doesn't know about the scheme, he is very much mistaken.

The meeting of the Interstate League is still a topic of conversation when the drug men get together. Happening to join a party at the "Century" the other day, I heard some very interesting talk on the "rebate" matter. One of the party, a well known member of a firm located

near William street (now, that's easy) said: "The difference between the League and the Detroit plan is a very serious one to some proprietors. How are infants' food and fluid meat manufacturers to live up to the rebate plan as constituted by the Interstate League, which went back on the Detroit plan? Those manufacturers sell most of their products through the grocers, and you can't go and ask them to commit financial suicide."

Another member of the group said: "The policy of the house to which I have the honor to belong has been clearly defined as one looking to the protection of the retailer in his securing legitimate profits on all proprietary goods. But there has been no plan so far presented which has avoided, or can, in my estimation, avoid the difficulties attendant upon its execution. There are always some jobbers, as well as retailers, who will not only break a contract which they have willingly signed, but will also visit their concealed indignation upon any manufacturer who shall attempt to enforce the terms of such contract. When, in connection with this, the difficulty of actually proving bad faith is considered, you will see that it is difficult for the manufacturer, under any plan that has so far been suggested, to work in harmony for the interest of the retailer. In spite of all precautions, the manufacturers themselves will sometimes be imposed upon, and in my experience I have found that rival manufacturers will procure the services of reputable brokers, jobbers or retailers to procure our goods in order to effect a sale of their own products, and in order to do this will sell Jones' plasters, for instance, without any regard to quantity at the highest discount. If we trace the goods to the shelves of the cutters, we cannot prove that they may not have been furnished by jobbers, for instance, to a reputable dealer and by roundabout ways to the cutters."

There is a point in connection with the "forged drug orders" case just brought to the attention of the trade that is well worth emphasizing, especially as it has not yet been mentioned in print. It is this: A firm in any line of business that is informed that other firms in different lines of trade are being swindled in its name should promptly let the trade journals know of the deception, so that by a few days at the most the firms may be prepared to catch the rascal. A slight service of this kind recently would have saved Lehn & Fink from being duped. Bruen Bros. & Ritchie had given a man who presented an order apparently coming from Stephen H. Mills & Co., a gross of plasters. Finding out that the order was a bogus one, Mills & Co. could have easily notified the trade journals. Then, when the same man presented an order bearing Mills & Co.'s name at Lehn & Fink's he would have been held for the police. As it was, Lehn & Fink knew nothing about the previous swindle, so the rascal got another gross of plasters. It is not necessary to talk about care being exercised in the matter of filling orders without the bearer of the order being identified. All firms exercise care in such cases, but the most careful get caught sometimes. Four years ago Lehn & Fink caught a swindler through notification by another firm. It is hoped that the present case will have the same sort of an ending.

A gentleman in the trade who has been up the state during the past week reports the druggists up Troy way as saying that they never saw such hard times. In Poughkeepsie and Poughkeepsie things seem to be better, or, at any rate, more promising. The new tariff bill is all the business men, druggists included, talk about now, and they seem to have plenty of time to do their talking in. They are very anxious to hear up the state how things are going on in New York, and cheered up when they are told that business prospects are brightening. Another unfortunate who has been obliged to immerse himself in South Jersey for a week says all is like the tomb down there—very quiet.

That telephone matter, which is so interesting to the druggists over in Brooklyn, may yet develop into a good-sized war with the company. The matter was discussed at the meeting of the Kings County Pharmaceutical Society on Tuesday last. At the same meeting a paper was read by W. P. De Forest on "The Preparations of the New Pharmacopoeia," and was discussed by several of the members. "How May We Make the Best Citrate of Magnesia" was another subject of talk. Many were the regrets expressed on the death of Mr. Paddock.

John R. Hardin will continue as receiver of the Crescent Drug Co., of Newark. The company was a cutter in the line of perfumes, but the local trade stopped that business by appealing to the manufacturers.

Chairman Thomas F. Main presided at the regular monthly meeting of the drug section of the Board of Trade and Transportation, which was held on Thursday last. Reports of satisfactory progress were made by Chairman Hartford, of the committee on membership; Chairman Stallman, of the committee on importers of drugs and chemicals, and Mr. Rogers, of the committee on legislation. Attention was directed by Mr. Rogers to the new pure food bill now before the House of Representatives, and at his request it was referred to the committee on legislation. Letters were read from the Philadelphia and New England Drug Exchanges referring to interchange of ideas and to co-operation. It was the sentiment of the meeting that the movement started by Mr. Rogers, the former chairman of the section, to bring the drug associations closer together should be continued. Chairman Main announced the committees for the year

George Rau, of Second avenue and Sixteenth street, has sold out his store to Grimm & Wells.

J. T. Berry, secretary of the Crowds Drug Company, Dallas, Tex., has been a visitor to the city.

S. M. Strong, of Strong, Cobb & Co., Cleveland, treasurer of the N. W. D. A., has been in town this week.

Peter J. Tormey, representative of W. H. Schieffelin & Co. in San Francisco, has been in this city for the past two weeks.

W. G. Moffitt, of the Astor House drug store, has made some fountain-manufacturing firm happy by putting in a new apparatus.

William N. Clark, the druggist at the corner of Jerome avenue and 165th street, and John J. Carle, whose store is at 153 Water street, were members of the February grand jury.

The names of William H. Schieffelin and John L. Ilker appear in the list of additions to the general committee of the citizens' relief committee.

Prominent business men of the upper wards of the city are organizing a board of trade to be called the North Side. Among those who will become charter members is S. W. Fairchild.

C. M. Morsebeau, son of a member of the firm of W. H. Schieffelin & Co., has been quite ill recently, but his physicians report him as very much improved. He will probably be out in a few days.

George F. Shieles, a well known druggist, died at his home, 63 East Twelfth street, on Sunday. He was born in 1826 at Merida, Yucatan, and graduated from the New York College of Pharmacy in 1851.

H. A. D'Acuel, of the Parthen, D'Acuel Drug Co., of Butte, Mont., has been in this city for a few days. He sails for Europe soon. Mr. D'Acuel enjoys the pleasure of a trip across the ocean very often.

A Harlem druggist asserts that people are doctoring themselves nowadays more than for some time past. Instead of visiting his store with physicians' prescriptions, as they used to, they call in for herbs, salts and the like.

The new Hegeman Company has been incorporated with a capital stock of \$50,000. The articles of incorporation were issued on February 10, and give the following as directors: J. N. Hegeman, J. W. Ferrier, J. G. Glenn, L. A. Wilson. The Hegeman store, recently burned out, will be opened for business about March 1.

Druggist Simon, of 224 Fifth avenue, has offered to put up all prescriptions called for by poor people living in the district bounded by Third and Eighth avenues and 125th and 155th streets without cost to the applicant. In his notice Mr. Simon says: "We like to do all in our power to help the poor in these hard times. They cannot go to the free dispensaries all the time, and many of them are too ill to go out of their houses."

Every Saturday afternoon for the next fourteen weeks there will be some good sport at a downtown bowling alley, where three teams from the drug men's bowling league will struggle for the mastery. The first game was played last Saturday. Among the firms who are represented in the league are: McKesson & Robbins, Dodge & Gleot, Seabury & Johnson, Whitehall, Tatum & Co. and C. G. Bacon & Co.

Paepek & Tellkampff, of Sixth avenue and Fourteenth street, have sold the lease of their store. Their stock has been sold to C. F. Hanson, whose store is at the corner of Sixth avenue and Sixteenth street. Mr. Hanson also takes the prescription books. The reason for this change is that Mr. Paepek's health has been such that he is compelled to retire from business. His friends wish him a speedy restoration.

R. W. Walker, agent for James W. Tufts in this city, reports that the firm has placed or will supply fountains in the following new drug stores: Jacob Morin, 48 Atlantic avenue, Brooklyn; William N. Schatz, Central and Imrod streets, Brooklyn; Henry C. Smith, Sea Cliff, L. I.; P. J. Dwyer, New Brighton, S. I., and John Leveridge, Bayonne, N. J. The Tufts fountain is also to be seen in the newly refitted stores of G. R. Klutrow, 175 Lexington avenue; F. C. Heckel,

389 Manhattan avenue, and H. T. Klein, 295 Sixth avenue.

O. G. Kalleh, formerly of Hudson's, where he was the right-hand man of the store, may not know that he and his new store at the corner of Twenty-third street and Third avenue are at present the cause of considerable wonder. All the druggists in town think that Mr. Kalleh's store is a thing of beauty, and they are speculative on its cost. They hope the venture will meet with the success that is due to such a hard worker and good fellow as O. G. K.

The drug clerks talked a good deal last spring about forming a society for mutual protection and benefit. What has become of that organization? There have been many attempts made to get the drug clerks to form a real live association, but the interest displayed in the movement was not such as to warrant anybody's wasting valuable time in the cause. It is said that one of the chief troubles in starting a club of this sort is the lack of money. It would take at least \$500 to furnish and hire a couple of rooms, and it might just as well be \$1,000 as far as getting it is concerned.

A well attended meeting of the New York section of the American Chemical Society was held on the night of February 9 at the University of the City of New York. Prof. P. T. Austen presided. S. Stillwell read a paper on the manufacture of compressed gases, explaining the details in the production of compressed oxygen gas and liquified nitrous oxide. Gas compressing pumps giving a pressure of 15,000 pounds to the square inch were described. Attention was drawn to the difficulties of removing the organic odor from ammonia. Dr. Hugo Schweitzer read a paper on the methods of the commercial analysis of lard. This section of the society meets on the second Friday in each month, at 8 p. m., in room 24, of the university building.

The druggist who hasn't a soda fountain in his shop is not considered up to date. During the past few weeks several druggists who have never entered to the thirsty have dropped their conservatism and put in apparatus. There is S. S. Mapes, of Fishkill Landing, whose store was established in 1834. He has just put in his first fountain, and Howell & Sangton, agents for the Low Art Tile Co., furnished him with a very fine one. Charles Loeber, of 187 Third avenue, is another druggist who has never dispensed soda water, and the same firm has put in his fountain. Among other firms supplied by the same agents are: H. A. Faulkner & Son, 129 Hudson street, Hoboken; O. L. Graninger, of Peekskill, and Frank L. Fieger, of East Orange. Mr. Fieger's Arlington Pharmacy is a very popular store. His fountain had to be located under a stairway, so a special form of apparatus had to be made. It will be ready for use next week.

There is one druggist in Washington, D. C., who believes in paying his gas bills at any rate. Morris Blinswanger, a clerk in the employ of D. P. Hieking, of that city, was arrested recently and locked up, charged with the embezzlement of the money his employer had given him to pay a gas bill.

South Manchester, Conn., has a new drug store, with F. B. Horton as proprietor. A fountain has been put in by the Low Co.

BOSTON.

Boston, February 20.—Senator Cronan, of Suffolk, has just introduced a bill into the Massachusetts Senate to prohibit the sale of all patent medicines which contain anything, which, when compounded, is dangerous to anyone using it. The language of the proposed bill is as follows:

"Every owner of a patent or proprietary medicine sold, or offered for sale within this commonwealth, shall, within thirty days after the passage of this act, furnish the state board of health with the formula used in the preparation of the same. The state board of health shall cause all such medicines to be analyzed from time to time, and, if the ingredients used in the preparation of the same are found to be injurious to health, shall advertise the name of such medicine and the result of such analysis in such newspapers as said board may deem best, and shall also notify the owners thereof."

Senator Cronan says in regard to this bill: "It is a measure, I think, of great public interest. The manufacture and sale of these patent medicines have assumed such immense proportions that it seems proper that the legislature should control and regulate the matter. This act is entirely in line with legislation regulating and controlling the sale of milk, vinegar, oleomargarine, and other articles of consumption, the tendency of which, if not properly controlled or regulated, is directly toward the injury of the public health. It is with the belief that there should be some restraint upon the production of articles of consumption that the legislature has passed these laws. It seems to me necessary to place this restraint upon the manufacture and sale of patent medicines that those who rely upon the merits of such medicine to benefit them should not be injured by improper or deleterious ingredients. At present people purchasing such medicines have no knowledge of the ingredients. There is no source of protection for the people who buy such medicines. It is really a protection to the manufacturers of valuable remedies, as well as a protection to the public, as the man who has a good medicine has nothing to fear, while the clause preventing the formula being made public ought to insure the manufacturers against any fear of infringements of their rights."

The anti-cigarette bill has become a perennial fixture at the State House, and it makes its appearance this year as of yore. This time it comes up on a petition of half a dozen men. It is a sweeping measure, for the petitioners want it passed in this shape: "No person shall manufacture, or sell or expose for sale, cigarettes with paper wrappers or cigarette tobacco in any form. Any person violating any of the provisions of this act shall be punished by a fine of \$100 for each offense."

At a recent meeting of the Newton aldermen, a hearing was given to Thomas F. Kelley, of Waltham, to show cause why his sixth-class liquor license should not be revoked. Mr. Kelley acknowledged that his liquor book at the Norumbega pharmacy was not kept according to law, and that he was seldom at the Newton drug store, being engaged in the drug business at Waltham. His lawyer stated that Mr. Kelley would not oppose the revocation of his license, which was already void under the statute of June, 1883. After a short

executive session the board voted to revoke the license.

Probably but few of the millions of people who patronize druggists' soda fountains have ever let a thought of the tariff enter their minds as they quietly enjoy the refreshing drink, yet it appeared that the tariff has a pretty close relation with the fountain. This is shown by the fact that the Boston Marble Cutter's Protective Union has lately sent to Senator Lodge, of this state, a long protest from which the following extracts are taken: "The tariff on marble has been a sore spot in the marble industry of the United States for many years past. It has been too low—so low, in fact, that our employers acknowledge that they are able to have their work manufactured in France, Belgium, and Italy, and then import it to the United States fully 30 per cent. less than it would have cost to have it manufactured here. We will take one branch of the industry as an example—the soda fountain branch. A few years ago we had about 250 men working at it; at the present time we have about ten, and these men are put on short time in summer. All the fountains are manufactured in Europe. The fathers do the cutting, mothers and children the rubbing and polishing. A duty of 50 per cent. is paid here on the foreign valuation, and all that is left for our workmen is to set the fountain up when it is sold. The Wilson bill does not place the duty on marble properly. Take the soda fountain and building work; this is composed almost entirely of thin slabs, and we cannot see how they are going to figure up a cubic foot of it. The product of the marble industry is not one of the necessities of life. It is, in a certain sense, a luxury, and a duty should be placed on it sufficient to protect the American workmen. If the Wilson bill passes, the industry in this country, as far as manufacturing it goes, will be exterminated, and the men working at it at present will be forced to loaf on the streets or force themselves into some other overcrowded industry."

Since the elopement of Arthur A. Chesley, a Roslindale druggist, with a young and handsome married woman, many interesting facts in connection with his early career have come to light. Chesley was born at West Rochester, N. H., and received his education in the public schools of Rochester. He learned the drug business and was employed by S. F. Sanderson, of Rochester. He was genial and popular. He identified himself with the Methodist church and was a member of the Sunday school. That his connections and his character were regarded as all right is shown by the fact that he was paying some attention to Miss Wallace, daughter of the millionaire boot and shoe manufacturer of Rochester. Chesley abandoned the drug business and purchased Niles & Co.'s branch express running between Dover and Rochester, but made a failure of it, and was next associated with a partner in the sale of a railway map of New England. These maps were purchased for 35 cents each and were retailed at 90 cents. Young Chesley expected to harvest a fortune from this business. He went to Claremont to canvas that town for maps, and when his partner joined him some two weeks later he found that Chesley had not sold a map, but was a high-flyer of the first magnitude. He was stopping at

the Belmont hotel, occupying the best rooms, and living like a man possessed of unlimited wealth. From Claremont he went to Bellows Falls, Vt., promising his partner that he would settle down to business, but it was soon learned that he left Claremont without having paid his hotel bills. The hotel people were after him. From Bellows Falls he went to Keene, but made a failure of the business of selling maps. Next he tried to secure admission to a training ship in New York. After this he drifted to the little town of Lee, Mass., where he secured a position in a drug store at \$12 a week. The friend who had tried to establish him successfully in the map-canvassing business, wrote him to come to Boston, where he had a position in a wholesale drug house awaiting him, but Chesley declined, saying that Rochester people would learn of his whereabouts were he to go to Boston; that he had lost money in the express business and at poker in that town, and that he believed it better for him to remain at Lee where he would be least sight of, as far as his old associates were concerned. In time he turned up in Roslindale, where he established himself in a good drug store, and appeared to be prospering.

A reminder of the Attleborough poisoning case in which a druggist's clerk figured rather unpleasantly, was furnished the other day by a little occurrence in Malden. A man went into Sargent's drug store and wanted some rum, then changed his mind and called for whiskey. He was refused, and then said he wanted some alcohol with acconite in it. Mr. Sargent would not give it to him, though he demanded it, and would not leave the store. The police were notified and he was arrested. The next day the judge gave him twenty-four hours to leave the city. Undoubtedly the Attleborough case was in the man's mind, for it was alcohol and acconite that killed the two tramps in that town.

Edwin S. Meigs, for the last two years a popular clerk at A. T. Clarke's drug store in Bradford, Vt., has closed his labors there and entered the employ of Jaynes & Co., of this city. With a desire to show their esteem for Mr. Meigs, twenty of the young men in Bradford tendered him a complimentary banquet, and presented him with a valuable ring.

Last year Howard L. Eldridge, a Brewer (Me.) druggist, was fined \$75 and costs under the liquor nuisance act. He gave bonds to appear in the term of court now in session. Several days ago, Mr. Eldridge having delayed appearing, the county officials attached his house for the amount of the bond, \$500. It came at a time when Mr. Eldridge was trying to secure a loan from a local bank on a mortgage upon his house. He was naturally very much worried. He accompanied his bondsmen to court and upon payment of the costs of the attachment proceedings the bondsmen were relieved of their obligations, and Mr. Eldridge placed in the custody of the sheriff until he could raise the desired amount of money. He was allowed to go home and before doing so completed arrangements for the desired loan, so that everything would be all right again. But the strain and disgrace had been too much for him, and upon reaching his house late in the afternoon he was so completely prostrated that he went immediately to bed and grew rapidly worse until evening when he died. The doctor

pronounced the cause of death to be heart disease, caused by the unusual excitement and strain.

George W. Cate has just opened a drug store in Fall River.

George E. Simpson has opened a drug store in Skowhegan, Me.

John D. Foster has opened a fine new drug store in Bath, Me.

J. W. Parker, of Natick, has bought the drug store of Ladd & Co., of Malden.

J. W. Tufts is going to Florida for a well-earned rest of six weeks or more.

Witch & Woolson have bought the drug store of H. A. Greeley, Hopkinton, Mass.

Dr. A. P. Bissell has bought the drug store of J. V. Comeau, Waterbury, Conn.

J. Gearon, well-known in Fitchburg, has accepted a position in a Brockton drug store.

Just one of the thirty mayors in Massachusetts is a druggist—Hon. John J. Whipple, of Brockton.

Housemann & Co., druggists, 257 Washington street, Roxbury, have just bought a new soda fountain, Tufts.

E. K. Woodward, of Ellsworth, Me., has been visiting Boston to get a full line of supplies for his new drug store.

J. S. Lang & Co., having moved into a new drug store on Broadway, Everett, have bought a fountain of Tufts.

John H. Buckley, Jr., formerly with the John Matthews Apparatus Co., is now representing J. W. Tufts in Maine.

Victor Lussier has opened a drug store in Nashua, N. H. The furnishings include a handsome fountain supplied by Tufts.

Cornelius J. Dwyer, druggist, Marlborough, is financially embarrassed, and his store is under the charge of Michael Burke, as trustee.

Among the new drug stores in western Massachusetts is one at Easthampton, to be conducted by Geo. S. Russell. A fountain was supplied by the Low Co.

An attempt at burglary was made at Taunton one night this month at Clark & Hyland's drug store, but the visitors got nothing for the risk they took.

A handsome drug store is to be opened at the corner of Boylston street and West Chester Park, by A. P. Watson & Co. Mr. Watson was for years with Brown.

In the insolvency Court the cases of William R. Webster, a Roxbury druggist, and Frank D. Litchfield (Willard Remedy Co.) have been adjourned to March 23.

Curran Bros., of New Britain, Conn., have bought a drug store in Holyoke, Mass., and will do business in both places—in Holyoke, under the name of the P. P. Goodall Drug Co.

Charles H. Collins, of Milford, now in business in Callahan Block, has bought the store at the corner of Main and Exchange streets, in that town, formerly owned by F. H. Clark.

C. H. Moore, a Rockland, Me., druggist, appears not to be affected by the hard times, as he was in town the other day, delighting his creditors by settling accounts ahead of time.

An attempt has been made to find a druggist willing to go into business on Boylston street, corner of Fairfield street—a fashionable locality, but the neighborhood is already well served.

A stock company is soon to open a drug store at the corner of Sixth and Union streets, New Bedford, with John H. Nuttall as manager. The Low Co. furnishes the soda fountain.

John Macksey and W. Helmer, of this city, have been granted a patent on apparatus for and process of making carbonated beverages. They have assigned their rights to the American Soda Fountain Co.

The general agent of the Massachusetts Chemical Co., of Boston, has issued a catalogue, which besides describing the company's products in detail gives the first rules for the perfect insulation of dynamos and motors.

John I. Brown & Sons have made their annual distribution of their bronchial troches among the members of the Legislature. This odd gift is always the cause of some amusement; but the troches are very welcome, nevertheless.

Damage of about \$30 was recently caused by a fire in the absorbent cotton factory of B. F. Smith, North Weymouth.

There was a fire on the 13th inst. in West's block, Pittsfield, by which W. H. Currier, a druggist, lost \$400.

Sales of fountains to druggists are reported by the Low Co. as follows: Chas. Loebler, Third avenue, New York; H. A. Faulkner, Hoboken, N. J.; F. L. Pleger, East Orange, N. J.; William Wright, Atlantic City, N. J.; Edwin Yarnold, Washington, D. C.

George F. Dow, a druggist at No. 2521 Washington street, was arrested last Sunday for an alleged illegal sale of intoxicating liquor at the time of arrest. Before making the arrest, the policeman, who was in civilian dress, purchased a half-pint of whiskey.

The Legislative Committee on Liquor Law has reported against fixing the price of druggists' licenses at not less than \$50 nor more than \$500; the same committee reported ought not to pass on a bill of Mr. Jones, of Melrose, relative to granting licenses for the sale of intoxicating liquors to druggists.

John Larrabee, a well-known druggist, for twenty-one years Town Clerk of Melrose, will not be a candidate for re-election at the annual town election in March. Ill health is the cause of this determination. He became Town Clerk when a young man, and is now the oldest town official in Melrose.

Harris & Cox, who now carry on the business so long conducted in Bath, Me., by A. Hallett & Co., have lately been in town to buy supplies. They were recently burned out, and have gone into temporary quarters. A new store is to be built for them. Tufts has supplied a fountain to take the place of the one destroyed.

Sessions of the Board of Registration in Pharmacy were held February 13, 14 and 15, and thirty-eight young men were examined. The following-named were given certificates: William J. Heebner, of Lee; Gorham N. Winslow, of Peabody; Andrew F. Fearn, of Exeter, N. H.; Felix J. McCarthy, of Boston; Honorius J. Sorel, of Fall River; Thomas D. Driscoll, of Quincy; Joseph R. Goddu, of Medford; Wm. T. Weldon, of Boston.

Shortly before midnight the other night two men smashed the front window of the drug store of George S. Curtis, at Peabody, and snatching a box containing \$15, made their escape. Mr. Curtis had the stolen box on exhibition in his window. It was to be given to the customer holding a key that would open it, a key being presented with each purchase. A man was arrested for the theft, but has not been convicted.

PHILADELPHIA.

Philadelphia, February 21. In speaking about the dissatisfaction among some of the members of the N. W. D. A. in regard to the increase of the dues from \$10 to \$25 a year, M. N. Kline said: "I was surprised to hear that a number of our wholesale druggists and those engaged in allied branches had resigned their membership in the N. W. D. A. since the last meeting. There are a few among them whom I recognize as probably having too little interest in the business to justify their retaining their membership. But there certainly are a number of others who have shared in the benefits of the work of this organization and are sharing it to-day to an extent which represents in value many times over the annual dues, and I am quite surprised that such parties should resign by reason of the small advance in the dues. I am told that the probabilities are that action will be taken at the next meeting restricting these increased dues to those interested in the patent medicine sales only."

E. A. Crenshaw's death has been a severe shock to the trade. An appropriate notice is presented in another column.

At a meeting of the Board of Trustees of the college, Prof. Joseph P. Remington, James T. Shinn and Howard B. French were appointed a committee to draft suitable resolutions on the death of Mr. Webb. James T. Shinn was elected treasurer of the college.

The old saying "it is never too late to mend" was very forcibly illustrated last month when J. Donald Marshall became a benedict by marrying Miss Lizzie Smith, of Holmesburg. Mr. Marshall was always considered a confirmed bachelor and for nearly three score of years he has been allowed to carry a night key and to hang his clothes wherever it suited him. Mr. Marshall, or, as he is better known, "Don," is a jolly fellow and somewhat of a musician, being quite a "fiddler." For a long time he and his brother had a wholesale drug store on the north side of Market street, west of Twelfth, but during the last year they have rented the first floor and now occupy the upper stories. The wedding ceremony was performed by the Rev. Mr. Peacock, of Holmesburg, on February 1.

Long & Neely have bought out Louis Genoia, who for a long time has kept the drug store at Twelfth and Chestnut streets. The new owners at one time were clerks for Mr. Genoia and are well acquainted with the trade. Mr. Long has until lately been with the H. K. Mulford Co., at 232 Market street, and Mr. Neely has for the last few years owned and run the drug store at the southwest corner of Nineteenth and Girard avenue. At one time the drug store at Twelfth and Chestnut streets did a flourishing business, but owing to the new methods of the more enterprising competitors the trade has somewhat diminished. The store is well known for its display windows, and on account of its close proximity to the theaters, the hot soda and other temperance liquids are in demand almost every evening between the acts. It is said the new firm will be more aggressive and will make a number of changes in the store and in the mode of conducting business.

George P. Connor is one of the most progressive regular druggists in this city. By the term regular it is meant that

Mr. Connor adheres to list prices, especially on rebate articles. His show window has always something attractive. His latest novelty was the erection of a miniature telegraph line, which he termed the "Tooth Brush Telegraph Line." The tooth brushes were strung artistically along the wires, and underneath were printed the rates, the charge being seven cents a brush.

James T. Shinn has taken as a partner in his Broad and Spruce streets store, I. M. Baer.

Richard M. Somers has sold his store at Seventeenth and Diamond streets to Jacob Elfreth.

Gov. Pattison has appointed Henry E. Porter, of Towanda, as a member of the Pennsylvania State Pharmaceutical Examining Board.

H. L. De Kolb has established himself in a pharmacy in the suburb of Newton, and E. C. Shafer has purchased the Acker store at Branchtown.

John Wyeth, of the firm of John Wyeth & Bro., manufacturers of pharmaceutical specialties, is spending the winter in the south of France.

Horace Moll, formerly proprietor of a pharmacy at the northwest corner of Thirteenth and Market streets, is now traveling for the Clinton Pharmaceutical Company, of Syracuse, N. Y.

Among those who have recently bought well-known pharmacies in this city are W. J. Baumgartner, Broad and Bishop streets; W. H. Galbraith, Ninth and Spring Garden streets; S. L. Knisell, Twelfth and Jefferson streets.

There is considerable talk in drug circles of the owner of a store in the central part of the city who is willing to give up his business. This is a surprise as he implied he meant to make things hum.

The Apothecaries' Union, which has its headquarters at Tenth and Spring Garden streets, is contemplating a change. Several buildings in the center of the city have been sought, but it is thought the one in the neighborhood of Sixth and Arch streets will finally become their home.

The juniors at the college are beginning to think very much about the examinations to be held March 10, and the seniors know that their time is precious between now and March 24, when the battle for a diploma will begin. The seniors all handed in their theses to Dean Remington on February 15.

Death invaded the ranks of the junior class of the college on February 6 and took Mrs. M. W. Stoner. She had been employed in the dispensary of Norris-town State Asylum and this was her first year in college. The Alpha Phi Society, of which she was an honorary member, passed suitable resolutions of respect to her memory.

The sponge market continues to be short of sheep's-wool stack, although some goods have been received from the Florida fishermen recently. Louden & Hill the other day got a consignment of Florida sheep's-wools, consisting of 123 bales. Mr. Louden stated that his advices were to the effect that prospects for more goods are not promising.

Since Bullock & Crenshaw determined to give up the patent medicine and sundries business there has been placed in the rear of the store a table on which these articles are displayed. On account

of the great variety of goods it was named the "Midway Pleasance." This name has stuck to it, and the term is generally used throughout the store.

The Ohio Club has for a decade been one of the strongest associations in college, and many of its members have carried home prizes to the Buckeye state. This year fifteen seniors have formed its membership. As the close of the term approaches the club is organized in the junior class. This was done last week by D. E. Brown and G. L. Kappes, officers of the club, and seventeen juniors were received as members.

The February pharmaceutical meeting was held in the college museum on the 26th of the month. Dr. H. W. Jayne read an instructive paper on "Crude Carbolic Acid." Joseph Crawford's paper on "Forestry at the Columbian Exposition" was listened to with close attention. Charles C. Manger read a paper on "Euparin—a crystalline principle from Eupatorium purpureum," and Lyman F. Keble, chemist for the Smith, Kline & French Company, spoke of "A Process for the Assay of Vinegar of Opium."

On February 9 the State College Sophs tried to prevent the freshmen from holding their annual banquet at Loch Haven. The freshmen anticipating such a move had chartered a car and executed a successful flank movement and then barricaded themselves in the car. Repeated attempts of the Sophs to gain admittance were fruitless. An embryo chemist, however, mounted the roof of the car and poured a large quantity of sulphur down the stove chimney. The lack of ventilation caused by the closed windows and ventilators resulted in the train officers having to run the car a mile or so from the station and out of reach of the sophomores in order to allow the ones inside an opportunity to recover from the stifling effects of the sulphur fumes. The freshmen had their dinner.

Dr. Harry C. Watt, Ph. D., has recently acquired possession of the building on the southwest corner of Broad and South Penn Square, the price paid being a large one. This is one of the most desirable locations in the city for a drug store. It is opposite Philadelphia's monument, a \$15,000,000 structure, which is not yet finished. It is near John Wanamaker's great store and on the line to the Pennsylvania Railroad depot, a square away. Dr. Watts has a drug store a few doors from the corner of Penn Square on Broad street, but as soon as his lease expires he will erect one of the handsomest office and drug store buildings in the city. When the new station of the Pennsylvania Railroad Company, at Broad and Market streets, is completed Dr. Watts is to have the drug store on the ground floor. The doctor is an enterprising druggist, and though he holds a diploma as a physician he does not prescribe, as he thinks a druggist should stick to the compounding of drugs.

The Louisiana Board of Pharmacy at its session in New Orleans, February 9th, issued certificates of registration to C. Goodwill, Monroe; and Emile Helman, C. D. Sauvenet, A. P. Schmitt, Simon Verburg; E. H. Walsdorf, J. S. J. Otto and A. C. Ereitak, of New Orleans. A number of candidates were also examined for both registered pharmacist and qualified assistant's certificates. The board will hold its next meeting during the first week in May.

DETROIT.

The recent visit of Senator McMillan to this city furnished an opportunity for several of the leading manufacturing perfumers of Detroit and nearby cities to call the attention of the Senator to several defects in the Wilson bill, affecting the perfume industry, with the hope that they might be remedied when the bill comes up for consideration in the Senate. An informal meeting was held, and a committee appointed to draw up a statement of facts regarding the manufacture of perfumes in the United States, and presenting views as to the proper tariff legislation. This report has been placed in the hands of the Michigan Senators as an expression of the views of the manufacturers of Michigan, a state which, by the way, ranks second in the United States in the production of perfumes. The Wilson bill as it now stands proposes a reduction of one-half the ad valorem duty on competing foreign product (Alcoholic perfumes), while the rate on imported raw material (Essence of pomades, essential oils) is to remain as at present. The proposed changes in the internal revenue laws also contemplate an increase in the tax on deodorized alcohol, so that the perfumers of the United States will be compelled to meet the competition which a decrease of tariff on foreign perfumes will produce, and at the same time receive no reduction in rates upon their raw material, pomades and oils, which are all imported, and be compelled, further, to pay a higher price for their alcohol. This petition, therefore, requests, preferences for amendments to the proposed bill being in the order named. First, that the rates on alcoholic perfumes shall remain as at present, and essence of pomades be admitted free of duty to offset the proposed increase on deodorized alcohol. Second, that the rate on alcoholic perfumes prevailing in 1888 be restored, increasing specific duty \$1 per gallon over present and proposed law. Third, that the existing tariff law be not changed, which will give the foreign manufacturer no increased advantage over us, except as the internal revenue tax on alcohol is raised above ninety cents a proof gallon. The manufacture of perfumes in bond (at reduced internal revenue tax) for domestic consumption, but not for export, was opposed as tending to discriminate against the smaller manufacturers, and the rebate of eighty-five cents per gallon on cologne spirits proposed in the brief lately presented to the Senate finance committee by the manufacturing perfumers as a body, was opposed on the ground that there was no possibility of obtaining it, and its consideration at present would endanger the prospect for obtaining equitable tariff rates; and such a measure would, at the outside, benefit but a few large buyers, and possibly prove a detriment to the smaller manufacturers.

Meloche Bros., druggists of Belding, report that the case brought against them by the Michigan Board of Pharmacy on a charge of conspiracy has been dismissed from the justice court of Ionia at the request of the prosecuting attorney, who became satisfied that the evidence produced was insufficient to warrant the conviction in the Circuit Court. They also give us the following outline of the case; the board, through information from Dr. J. E. Ferguson, Belding, swore out a warrant through its attorney, J. H. Hicox,

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charging A. F. with impersonating his brother, H. N., at the Baginaw meeting January 13 and 14, 1891, and obtaining a certificate as a registered pharmacist by fraud. Witnesses were sworn to show that it was A. F. who was there, identifying him by his smoothly-shaven face and mustache. The defense proved an unquestionable alibi, showing that A. F. was in holding upon the dates mentioned, and that he wore a full beard. Questions as to the competency of H. N. were then brought forward. The secretary's books show that but one of the forty-three applicants examined at the time had a blither standing than had H. N.

An adjourned meeting of the retail druggists of the city was held in the Cowie building February 21 to further discuss the subject of advertising cut-rate prices. It was almost unanimously decided that each druggist should "work" his district and trade in the way he best saw fit. Chairman Allen took the opportunity to boom the local association, and asked all druggists present to meet with it at its next regular meeting, Wednesday, March 7.

W. A. Strong & Son, druggists, Reed City, were burned out February 22.

Frank E. Heath has purchased the drug stock of Geo. D. Lunn, Edmore.

Dr. Nelson Abbott, formerly of Lima, Ind., has bought out Druggist Leighton, Kalamazoo.

S. F. Fritzel, druggist, 4 and 6 Gratiot avenue, has been confined to the house with an attack of grip.

The wholesale drug establishment of Farand, Williams & Clark, at 32 and 34 Woodward avenue, was destroyed by fire Feb. 16, an extended account of which may be found on page 231.

A. F. Miller & Co., Swartz Creek, have been decorating and remodeling their store. The stock has been largely increased, and they report doing a splendid business.

C. E. Hollister, the proprietor of three well known north end drug stores, had the misfortune to severely sprain his ankle a few days ago when attempting to mount his bicycle. He now walks with a cane.

H. S. Sears, representative of Billings, Clapp & Co., Boston, favored the Era with a call February 22. He is on an extended business trip, visiting the trade in Detroit, Chicago, St. Louis and various other cities.

The mother of George Boehnlein, Williams, Davis, Brooks & Co.'s salesman, killed in the Harmonie Hall fire some time ago, has brought suit against the Star Accident Insurance Co. to recover the amount of the policy, \$5,000, issued on the life of her son. The company refuse to pay.

F. G. Aldworth, formerly of Scribner & Aldworth, Grand Rapids, will again represent John Wyeth & Bro., the Philadelphia pharmaceutical house, as traveling salesman in Wisconsin, Minnesota and South Dakota. Mr. Aldworth held a similar position with that firm before his engagement in the retail business.

If all reports be true, then the druggists of Manistee are no longer bothered with cutting prices on patent medicines. All of the druggists of that city, fifteen in number, have signed an agreement to that effect. If any member fails to live up to the agreement he will forfeit \$25, to be covered into the treasury of the Manistee Industrial Home.

St. Louis, February 22. The improvement in the volume of wholesale trade, which made itself felt about February 1st, has steadily strengthened until our wholesalers are inclined to the conviction that the worst has passed and that the spring will bring a return of business that will be very satisfactory.

The January meeting of the St. Louis Paint, Oil & Drug Club was held Thursday evening, the 18th. President Daugherty presided and there was an attendance of thirty-six persons. The Standard Varnish Company, Mr. F. T. McHenry, St. Louis representative, and the Cleveland Varnish Company, Mr. Clinton Huber, St. Louis manager, applied for membership to the association and were admitted. What is known as the Detroit plan of selling paris green was read to the club. Mr. Barstow moved that it be the sense of the meeting that it recommend the adoption of this plan to the members of this club who deal in paris green. The motion was carried. W. M. Schuyler read a witty paper on "Cranks," after which Rabbi Sale, of St. Louis, delivered an eloquent address on the single tax method of raising revenue. Messrs. Addington, John Dutro and Mr. Jacob Trisler also made short speeches in favor of the single tax. The meeting adjourned late, after a session of four and a half hours. The February meeting occurred on the evening of the 15th. There was a good attendance and the programme was of more than ordinary interest. Hon. Franklin Perlia, vice-president of the City Council, made an interesting address on "Municipal Government." Another topic discussed was "Restrictive State Taxes on Foreign Corporations." Messrs. H. S. Tuttle, N. H. Foster and Geo. D. Parker were present as a delegation from the Furniture Board of Trade, to hear the remarks of the members. The Paint Oil & Drug Club will appoint a committee to confer with other trade organizations in this city and elsewhere, and decide upon the course of action to be pursued with them, in some cases, almost prohibitory laws.

Henry Lazarus, traveling agent for the Zwietsusch Soda Water Company, of Milwaukee, had a disagreeable experience in St. Louis the other day, being locked up for sixty hours as a fugitive from justice, because a victim of mistaken identity. He was supposed to be H. J. Franch, wanted in Chicago for forgery, and so was arrested at his hotel and cast into the holdover. A detective came from Chicago, and thinking that an error had been made, telegraphed back for the man upon whom the check had been passed. Lazarus waited in jail until the man came and declared that the wrong man had been arrested, then he was released.

Louis Wetteroth, a young druggist about 22 years old, employed in the downtown pharmacy of A. G. Enderle, at the south west corner of Carr and Ninth streets, St. Louis as clerk, was accidentally shot by Leon Grossman, and died from the effects of the wound one hour later. The shooting took place in a small room in the rear part of the store, which is used by young Wetteroth as a sleeping room, and was the result of the careless handling of a revolver. Mr. Wetteroth had been employed by Mr. Enderle for three years. He was born in Millstadt, Ill.

The profession is still shocked over the

double murder committed by Dr. Arthur Duestrow at his palatial residence, 1721 South Compton avenue, last week. Although only 39 years old, Dr. Duestrow rounded up a rapid career of periodical indisposition with the slaying of his young wife and 3-year-old son in a drunken frenzy. Mrs. Duestrow lingered for four days, but her child was instantly killed. The millionaire murderer will plead "transitory frenzy" as his defense.

A branch store of the Monroe Drug Co. was destroyed by fire at Unionville, Mo.

E. E. Hollbrook has again established himself in the drug business at Chester, Ill.

Theo. Luter is now with J. P. Tierney, of the Laclède Pharmacy, Sixth and Chestnut.

Dr. Say, recently with J. P. Tierney, has opened an office and is practicing medicine.

The Marshall Medicine Co., of Kansas City, with a capital of \$10,000, is a new Missouri institution.

Cunningham & Son, pharmacists at Kankakee, Ill., have been succeeded by Bettourne & McVicker.

The Meyer Bros. Drug Co. have renewed the city's contract for drugs and medicines for the first three months of 1894.

The retail druggists are discussing the Detroit plan and paying the way to put it into operation in the interest of the trade.

Stock and fixtures of the pharmacy at Champaign, Ill., owned by the late H. C. Karher, has been purchased by Price & Sanford, two competent young men.

At the annual meeting of the stockholders of the Moffitt-West Drug Company the following were elected directors: Wm. F. Niedringhaus, J. S. Moffitt, C. H. West.

William Branch, recently with F. P. McAuliffe, has opened a new store corner of O'Fallon and Eleventh streets. He is a graduate of the St. Louis College of Pharmacy.

Dr. W. H. Brennan, who was removed from the position of Health Commissioner, is still pressing his \$50,000 damage suit against Mayor C. P. Walbridge. The Mayor has the best of it, however.

George Paulus will retire from service with R. Sassmann, corner of Park and Mississippi avenues, and prepare to open an elegant store in the south part of the city. He is having a handsome building erected for that purpose.

Thomas Layton, the Grand avenue druggist, duly returned from New York, where he went to attend the meeting of the Inter-State Retail Druggists' League. He expresses himself as being delighted with the work of the convention.

Professor Frank Hemm, lecturer on practical pharmacy in the St. Louis College of Pharmacy, has moved his South Broadway pharmacy across the street from his old stand to a palatial new store. His new place is one of the finest in the city.

V. B. S. Reber, the Carondelet druggist, is being urged by his friends to become a candidate for the Republican nomination for the State Senate in the South St. Louis district. Mr. Reber served in the Lower House several years ago with distinction.

The Omega Phi Society of the St. Louis College of Pharmacy is doing much beneficent work among the students. The officers are: William Pilkington, presi-

dent; Rudolph Fischer, vice-president; S. V. Brace, secretary; Miss M. Martin, treasurer.

The St. Louis Medical Society has adopted resolutions of condolence and sympathy upon the death of Dr. P. J. Lingensfelder, one of the pioneer members of the society, who died on ship-board while on his way home from Europe.

There was a conference a few days ago between representative wholesalers and retailers to determine where the wholesalers stood on the Detroit plan, and the meeting was very satisfactory to the retailers. The wholesalers were found to be generally in favor of it.

The Women's Christian Temperance Union is after John Taylor, who has a drug store at Golden City, Mo. A committee of women called and demanded to see his prescription file, but he refused the request. The women will ask the court to compel him to permit them to see it.

Dr. Helme Marks, superintendent of the St. Louis City Hospital, regards subphosphate of strychnine, with which he has been experimenting, as a practical remedy for morphine poisoning. He is not prepared to say anything about the value of permanganate of potash, as he has not yet had occasion to use it.

The question of handling patent medicines exclusively through wholesale drug houses is attracting much attention, and a canvass of a majority of the retailers shows them to be in favor of handling only those proprietary medicines whose manufacturers or agents sell to wholesale druggists and ignore such trades as grocers and dry goods, etc.

Owing to the unfair and unreliable manner in which some of the city newspapers have been reporting meetings of the St. Louis Medical Society, there is a disposition to exclude reporters in the future.

W. S. Johnson, of Henderson, Ky., whose store was burned recently, was in St. Louis last week purchasing new fixtures.

The Lambert Pharmaceutical Company has brought suit against two representative pharmacists of Chicago, out of 161, for selling a substitute for the company's preparation "Listerine." One pharmacist has also been enjoined by the Federal Court from selling or dispensing any article whatever as Listerine, except that manufactured by the Lambert Pharmaceutical Company, while 73 other pharmacists have accepted the privilege of signing an affidavit that they will cease to substitute and will keep in stock a sufficient quantity of Lambert's Listerine to supply their trade.

Dr. William Frye, of Sedalia, Mo., claims to have been experimenting with permanganate of potash, heralded as an antidote for morphine poisoning. He reports that a dog was given five hypodermic injections of one and one-half grains of morphine at intervals of about fifteen minutes. This was equivalent to fifteen grains introduced into the stomach. In about two and one-half hours the dog was dead to all appearances. The attempt to restore it to life was then made. Three hypodermic injections of permanganate of potash of one grain each, in a dram of water, were given ten minutes apart. The first injection caused the dog in about fifteen minutes to prick up his ears when spoken to. At the second he was able to wag his tail, and the third enabled him to walk around the room.

CINCINNATI.

Cincinnati, O., February 22.—Frank C. Grote, the well-known wholesale druggist, had a harrowing experience a few days ago. He went into a restaurant in the bottoms and ordered some oatmeal and milk with his noon-day meal. Shortly afterward Mr. Grote was seized with retching pains in the abdomen and had to be taken home. Dr. Dunham was called in and stated that Mr. Grote's serious illness was caused by ptomaines in the milk. For a time his life was despaired of, but he has been improving slowly and is now considered out of danger.

Frank Koeng is back in his brother's store again after a severe touch of the grip.

Hugo Luebker, druggist at Clark street and Freeman avenue, has just been elected a director of the Lincoln Building Association.

Will Wagner, the senior clerk at Weatherhead's, is back from a trip to Texas. He was in business for quite a time at Austin, Tex.

Joseph Dehner, brother of the druggist at Seventh and Vine, has left his position in the west end, and can now be found at his brother's store.

Charley Stammel, the druggist at Elm and Findlay streets, is now in line, and is studiously at work diving into the mysteries of anatomy and kindred studies.

It was rumored that Louis Kusnick, the pharmacist at Weatherhead's, would emulate the example of Voss, but Louis makes a strenuous denial that he is to become a benedict.

Robert Wodtke is again behind the prescription case at John C. Ots & Co.'s store after an absence of several months spent in going from one store to another in the west end.

Louis Klayer, the druggist at Ninth and Elm, has given a contract for having his store refrescoed by a New York artist. The design is one of the nicest ever seen in this city.

William Simonson, of the drug firm of Werner & Simonson, is doing some special work for the city, and the result, especially in some milk cases, is being awaited with much interest.

Al Boehmer, the pharmacist at Eighth and Central avenue, talks of starting a branch store across the river, either in Covington or Newport, Ky. He inspected several places a few days ago.

Dr. Louis Sauer had his hair cut the other day, and when he got back to his store, his mastiff didn't know him, and had it not been for the interposition of the clerk, would have bitten the clever doctor-druggist.

Harry Streithorst, the young pharmacist who recently had his watch stolen at a reception, has received information from the police that his timepiece has been recovered in St. Louis, where the thief is in custody.

Ed Voss, the young pharmacist who controls stores at Twelfth and Vine and Wade and Baymiller, has resigned from the bachelors' club of the west end. Ed will soon lead to the altar one of the fairest society belles of the Queen.

Frank P. Deringer, the young druggist at Brown and McMicker avenue, is putting in his spare time studying medicine. Frank is a fresh air fiend, and he says he can't satisfy his appetite as long as he juggles pills and dabbles with powders.

The smiling countenance of Dr. L. R. Bramble, the Broadway doctor, is again seen on the streets. The doctor has had a collar and elbow wrestling match with pneumonia.

L. S. Shreck, who recently sold out his business, has opened an elegant drug store at Warner and Wheeler streets in the building formerly occupied by Druggist Charles Wuest.

John Fratz, Jr., will conduct the drug store at George street and Kenyon avenue, which was made famous by his father. The place is to be remodeled as soon as warm weather arrives.

Ed Bell, who formerly clerked for E. A. Keeshan, and was subsequently in partnership with Ed Gray at Fifth and Main, is now in charge of one of Woodbury's facial soap advertising wagons.

Wilmot Hall has started on a tour of the prominent southern cities for his health. All the boys hope Wilmot will find lots of health, as he is one of the most popular pharmacists in the city.

Louis C. Lippert, formerly of Ludlow, Ky., has opened an elegant pharmacy in the thriving suburb of College Hill. The new store is fitted up in modern style and resembles an up-to-date downtown pharmacy.

A well-known local physician will soon open a fine drug store in Camp Washington. The store room has been selected and the fixtures have been purchased. The store will be larger than any we now have in the suburbs.

A few days ago a Race street druggist gave a customer the wrong prescription and there came near being crepe on the door of a down-town clothing establishment. The mistake, it is claimed, was caused by a similarity in names.

George M. Smyth, the clever traveling salesman for the John M. Maris Company, of Philadelphia, was here for two days this week. Our Quaker City brother says he likes the druggists here on account of their true southern hospitality.

Dr. Charles Renkert has sold his drug store at Glendale and disposed of his interest in the Avondale store to L. N. Beruk, his erstwhile partner. The doctor will now go abroad, and upon his return will give his sole attention to the practice of medicine.

A. J. Doering, who has conducted the well-known Pike street store for a score or more years, has remodeled his store and will completely refit the place before the end of the next week. The new fixtures will be made of ash and have been ordered from Bangs.

The Board of Trustees of the Cincinnati College of Pharmacy will hold a meeting to-morrow to devise means of improving the course of study for next term. The faculty will also be decided on and a number of changes in the course of study will doubtless be made.

John Fallon, the popular druggist at Fifth and Locke streets, now sports an elegant new yachting cap, and all the girls in the vicinity are constantly running to his pharmacy for chewing gum and postage stamps. John is the Beau Brummel of the east end.

Dr. L. A. Haber, the veteran druggist at No. 486 East Third street, is now as happy as a school boy with a new pair of red top boots. The doctor has just fitted up his store in elegant style and the appearance of the place speaks well for his exquisite taste and judgment.

John Keeshan, the aged druggist at Sixth and Walnut, has just purchased a soda water apparatus, which now adorns the center of his store. The store-room is to have a new glass front. Better late than never is the motto of "Uncle John."

Mrs. Albert Vogeler, wife of the clever junior member of the Stein-Vogeler Drug Company, is confined at the Good Samaritan Hospital with a severe attack of nervous prostration. Mrs. Vogeler's ailment was brought on by too close application to musical studies.

Joseph Fuldner, the popular Avondale druggist, is confined to his home with a severe case of pneumonia. Joe is being attended by Dr. E. W. Mitchell, who says the druggist will pull through if he takes care of himself and lets the drug store move along without his assistance for a few weeks.

Ed Burdall, the Main street druggist and member of the Board of Legislation from the sixth ward, is now paying considerable attention to outside matters. He claims, however, that he will allow his clerk to resign or retire from the city council, as he claims business and politics do not go hand in hand.

Henry Gradel, who made the cut-rate drug store at Allison and Walnut streets famous, will soon open a new store at Fossilick and Highland avenues, Mt. Auburn. An elegant building is being erected for Mr. Gradel and he is personally superintending the construction of the first story.

The date of the annual meeting of the Ohio Pharmaceutical Association in this city has been changed to May 23, 29 and 30. The cause of this change was a conflict with the May Festival, which the druggists don't care "to play agin." The local committee have received word from a large number of manufacturers that they will be on hand with exhibits.

Yesterday morning a well clad man entered E. P. Dehner's drug store at Seventh and Vine streets and tried to rob the cash register. Val Lederer, the soda boy, was too quick for the robber, however, and the glistening barrel of a revolver caused cold chills to crawl over the fellow and he took the "screw number" before the arrival of the police.

On Tuesday last twenty-five barrels of cement were dumped on the pavement in front of Hager's drug store, near the Mohawk bridge. "Doc" Hager was afraid it might rain on the cement before it could be shoveled away, and the occupants of the store would then be buried, as there is no rear entrance. The entire front of the store was demolished, and the mules that were hitched to the wagon had lots of fun trying to decipher the Latin signs in the pharmacy.

The automatic fire sprinkler in the building of Noyes Bros. & Cutler, of St. Paul, sprung a leak January 28th and caused some damage to goods in the vicinity of the break.

Stuart, Maxwell & Carpenter, of Troy, Pa., have purchased the stores of Stuart & Maxwell and D. F. Pomeroy and will consolidate the two, moving the stocks into the store originally occupied by Senator B. B. Mitchell.

J. R. Hofflin & Co., of Minneapolis, Minn., are succeeded by the corporation of the Hofflin-Thompson Drug Co., with a capital stock of \$35,000.

CLEVELAND.

Cleveland, February 21. Chemist Smith, of Case School of Applied Science, has rendered a remarkable decision in a food-inspection case, namely: "Whosoever feeds sugar or syrup to bees and sells the honey made therefrom is as guilty of violating the law as though the sugar were mixed in with a spoon."

The Kelpier Pharmacy, on Lorain street, is for sale. Ludwik Kelpier, the owner, has grown wealthy in other pursuits, and is looking for a business less onerous than a druggist's.

E. A. Schellenstrager is the possessor of a curious old German recipe based on the superstitious beliefs of a former age. To cure fever, the patient must seize a handful of rye or corn and bind his hand up, covering himself warmly until perspiration is induced. When the grain thus becomes moist it must be planted in a pot of earth near the bedside, and as it sprouts and grows the sick person will recover. To cure toothache a sharp stick must be cut from the trunk of a young willow tree. The gum is to be punctured with this stick until the blood flows. Then the stick must be placed back in the tree and the trunk bound with cloth and waxed. If such care is taken that the tree lives, then the toothache is cured forever.

H. W. Stecher is reported better. Cleveland is to have a food and drug exhibition in May.

Franz Kelpier has been trimmed down by a severe case of grip. C. E. Hildreth, of 1228 Euclid avenue, has a fine winter soda trade.

The plant of the Jupiter Oil Co., at Dunkirk, was sold by the sheriff. Cleveland has a successful female chemist. Her name is Mrs. Ella Shove.

Finch Bros. & Co.'s oil business in Sandusky County is in the hands of a receiver.

S. M. Strong has been elected a trustee of the Cleveland Homeopathic Hospital Society.

Francis C. Keith, the manufacturer of Marshall's Catarrh Snuff, reports great success.

P. L. Dumbleton's drug store at Augustus is now run under the name of Dumbleton & Pottori.

The lined oil works of Pope & Co., Dayton, have been damaged by fire to the extent of \$15,000.

Mr. McDowell, of McDowell Bros., Medina druggists, was a visitor to the Cleveland market last week.

Adolph Hillhardt, the veteran druggist of Upper Sandusky, O., has been appointed consul to Moscow, Russia.

Sheriff Ryan, many years since, was a Newburg druggist. His business sign still marks the store he then occupied.

The Cleveland Medical Society is to have headquarters in the new Chamber of Commerce building and take \$10,000 worth of stock.

Many of our moneyed retailers are speculating in whiskey. If they hold it long enough a quick grip-cure may ultimately be effected.

The Red Seal Oil Co., of Missouri, sued the stockholders of the American Seed Oil Co. in local courts to secure payment of judgment for \$50.

Charles M. Cook, traveling for a Detroit baking powder house, attempted suicide at Columbus. The firm's financial troubles are given as the motive.

At the Hollenden, February 7, a banquet was given by the faculties of the Cleveland University of Medicine and Surgery.

Lederer's new store, corner Brownell and Prospect streets, ought to be a winner. The location is excellent from any standpoint.

The Crow & Whitmarsh cut-rate cuckoo remains remarkably quiet these days. It must have eaten crow and stolen Whitmarsh's nestegg.

George D. Zirker, formerly of Frieseman & Zirker, has purchased the bankrupt business of Wm. S. Furze, formerly Furze & Wilnot.

In the big Wapakoneta conflagration February 9 Moss & Kayser's drug store was completely destroyed. Loss about \$8,000; insurance \$1,000.

The Girshaw Lined Oil Co.'s plant at Warren caught fire and 40,000 gallons of oil were consumed. The plant cost \$200,000, and was insured for \$100,000.

The term of 1882-'84 of the Cleveland School of Pharmacy closes March 30. On April 10 a special botany course begins and will be continued to June 12.

Fred Felt, the Wellington ex-druggist, is now up for perjury in connection with illegal whiskey selling. Fred's defense is disclaiming making the sales personally.

A young man who will some day appear as a luminous figure in the pharmaceutical world is W. A. Palmer, Strong, Cobb & Co.'s road trade index and correspondent.

The Mayell-Hopp Co., who arc said to have the largest prescription patronage in the city, note a marked falling off of late. Even the rich seem to curtail doctor bills.

Joseph Fell, instructor in chemistry and physics at the Cleveland School of Pharmacy, narrowly escaped serious injury while experimenting with phosphorus recently.

New drug stores have been opened in the following towns: Canal Dover, S. F. Naylor; Grafton, W. F. Ashley; Oberlin, H. F. Smith; New London, D. A. Wood; Akron, C. Parlette.

Examinations of the C. S. P. will be held as follows: March 25, senior materia medica; March 27, junior pharmacy; March 28, senior chemistry; March 29, junior chemistry.

Dr. A. Dunlap, a physician of international reputation, died at Springfield. He was a delegate from the American Medical Association to the world's congress at London, Eng., in 1881.

Christie H. Schoenhut, manager of Strong, Cobb & Co.'s retail pharmacy, tells a gruesome tale of a Lakewood robbery in which his neighbor figures. The case is now in the courts.

The Cleveland Commercial Co., on Merwin street, of which M. A. Bradley is president, have become prominently identified with drugs and paints. They deal in full package lots only.

In many eastern cities druggists have gone into a sort of improvised real estate business. While the idea has not as yet struck here, many of our retailers are looking about for some shie line occupation to kill the dull times ennui.

J. R. Davis is the successor of H. L. Hogue at Belmont; T. A. Wagner succeeds W. K. Hughes at Berlin Center; the Moore Drug Co. succeeds C. A. Moore at Uhrichsville; E. W. Saltzman succeeds F. L. Berry at West Salem; E. D. Lynn succeeds Lynn Bros. at Canfield.

Cleveland is still the chewing gum center of the world. The industry was started with a barrel of borrowed sugar by its practical founder, W. J. White, the now millionaire congressman.

Charles A. Godman, Strong, Cobb & Co.'s popular outdoor city salesman, will be succeeded by Frank G. Dorn, of the city order department. Mr. Godman will be given a suitable indoor position.

Dr. H. W. Simons died of heart disease at his drug store in Conneaut February 19. He had been in business there for thirty years. His son, and probably his daughter, who is now studying medicine in Cincinnati, will continue the business.

About two score of local retailers, members of the C. P. A., enjoyed a banquet and stag social at the Forest City House February 20. After the love feast was over a number of the German members adjourned for a "phillistoesen kneip-abend."

Soap men claim that Chicago and Cleveland offer the best retail opportunities for their product. That's not strange. The two cities vie with each other in the production of soot and smoke of the most adherent quality. In dirt they rule the universe.

Jack H. Vance, for long years connected with Geo. A. Kelley & Co., of Pittsburg, is now traveling for Strong, Cobb & Co. Jack is very popular, highly rated as a salesman and a good, clever fellow all round. The Thirteen Club will add him to its bunch of hits.

A bill to offset the Avery bill has been introduced by Representative McBride. Its provisions are entirely non-partisan and liberal, barring none but non-composita candidates, one might say. Like the Avery bill, it provides for a state board of medical examiners to be appointed by the governor, with the consent of the Senate. The lavish liberality of the bill is likely to swear up a mountain of killing amendments and erasures, to say nothing of the bitter opposition of the Averyites. Besides, the amended Moss-grove non-partisan bill has passed the Senate without a dissenting vote.

Many associate members of the N. W. D. A. have become disgruntled because the annual dues have been increased from \$10 to \$25, and are resigning their membership. It has gone abroad that even regular members are leaving the association on that account, but that is not so. It is apprehended that the desertions will not cease until a discriminating rate is established for associate members. An effort was made to interview Treasurer S. M. Strong in regard to the matter, but that gentleman is spending a few weeks in the east. The information given out above is from a reliable source, however.

Customer (excited)—"I want a brush, quick."

John Jedleka—"What kind of a brush?"
"A brush with you—you—what do you mean by that?"

The customer laid a rag of paper on the counter. John began reading and blushed. It was later explained that the customer had sent his girl with an order reading: "I am still waiting for that q. w. Send it and Ill pay you to-morrow morning." John knew his customer to be a dead-beat, and, seizing a pen, changed the q. w. to read "quit waiting," struck the other words out and sent the girl back with it. Well, the fellow got neither quinine, whisky nor a brush, but made a forcible exit.

LOUISVILLE.

Louisville, Ky., February 22.—Secretary Robert J. Frick, of the Interstate League, is back from the New York convention and in a state of enthusiasm respecting the work outlined by the organization. Mr. Frick declares it the most successful ever yet held by the league, each association sending one or more delegates, making, in all, a body of men representing about ten thousand retail druggists. I had an interview with the secretary and he declares that the increased interest in the affairs of the league is gratifying to the officers. Mr. Frick states that he is in receipt of letters from different sections of the country showing a readiness to join.

"At the convention," said the secretary, "two or three plans for future work were proposed and the officers will go to work at once and put them into execution as rapidly as possible. We hope by May next, when the annual meeting takes place, to have a very encouraging increase and many gratifying reports. I heartily agree with the president of the league that the sale of proprietary medicines must not be in too large a measure dependent upon good faith. The agreement must be a practical business measure appealing to every party interested and, to be successful, it need not be said that it must have the absolute support of all concerned. The plan adopted by the league seems to contain all these essentials, although it differs materially from the compromise plan of the N. W. D. A. The jobbers of Louisville will, I think, be glad to hold up their end, as it will be to their own advantage. If the manufacturers refuse to accept orders for full quantities with rebate discount except from jobbers, this will cut off the smaller or club sales which have been customary. In many cases druggists send on orders together and divide the goods upon their return. The abolition of this practice will certainly be an advantage to the jobber."

Mr. Frick is, in fact, in high spirits as to the future outlook. He has all through taken great interest in the movement to secure some agreement by which the invasion of the retailer's territory may be stopped and feels that the time is now at hand when all hopes will be realized. Indeed, it may be said that all the druggists of Louisville have taken an active part in the discussion of this question, if not abroad, certainly at home. Through the instrumentality of the Botanical Club, the necessity for earnest co-operation on the part of every dealer has been impressed. If the associations all over the country were as determined in their support as the Botanical Club, there could hardly be complaint that the trade lacked interest. The druggists also feel that during the prevailing depression, it is of more than ordinary importance that vigorous measures of self-protection should be adopted. Sales have fallen off to a large extent locally, as elsewhere, if reports are to be relied upon, and the drug men have been compelled to stop up all leaks in order to keep business on an easy footing.

A meeting was recently held by the druggists of the city to take action to prevent the passage of a bill pending before the State Senate allowing doctors to compound prescriptions and run drug stores without first undergoing an exam-

ination. Dr. Wiley Rogers, Dr. J. W. Fowler, E. Y. Johnson, H. J. Snyder, Addison Dimmit, Fred C. Miller, Jos. Moore, A. J. Schoettlin, George Zubrod and C. Tafel were among the prominent representatives of the trade. Dr. Fowler was selected to act as chairman and addresses were delivered by several of the dealers present. The meeting resulted in the selection of a committee consisting of Dr. Fowler and Dr. Rogers to go to Frankfort and, if possible, defeat the bill through the assistance of the Louisville members of the Legislature. Messrs. Snyder and Dimmit expressed their willingness to respond to a call from the committee if more workers were needed. From the standpoint of the trade, the Legislature would labor under a grievous error in presuming that a medical education fits a man for compounding prescriptions and running a drug store. It could hardly be argued with success that a course in pharmacy prepares one for practicing medicine and the druggists feel that a great wrong would be perpetrated in allowing a diploma from a medical college to operate as a diploma from a pharmaceutical institution. It cannot be denied that there are physicians in Louisville and in Kentucky who are practical pharmacists, many of them, indeed, having graduated from the drug business into the medical profession, but these are exceptional cases and the injustice arises in admitting all physicians from the simple fact that they are eligible to practice medicine. The committee goes to Frankfort with the fortification of right, and if they do not succeed in relegating the bill to the waste basket of the General Assembly it will be because of the stupidity of the solons and not from any lack of ability on the part of the gentlemen who go to make it up. Without intentional disrespect to the august body which controls the destinies of the old commonwealth, it certainly does look as though the Louisville druggists have a hard time in keeping it in line. But for the timely interference of the leaders of the trade here, many unjust and wholly uncalled for measures would have been passed. In matters pertaining to the law the Legislature is all right and in matters pertaining to the business prosperity of the State the same may be said, but a technical knowledge of pharmaceutical requirements is in nearly every case requisite to the passage of laws affecting those interests, and as the General Assembly does not seem to be well supplied with druggists in its membership, it has been on the verge of making some very awkward mistakes—such mistakes as might be expected from a body of pharmacists who proposed to revise the code of civil practice, if such a broad illustration may be used. It would not be a bad idea to call in the services of the State Board of Pharmacy in matters pertaining to the trade, and especially in regard to technical regulations concerning it. The recently passed poison law may be elted as exemplifying the advisability of such a course. But all things considered, the druggists have no bone to pick with the Legislature so far as their treatment is concerned. In every matter in which they have expressed a desire to be heard, that hearing has been not only respectfully but cheerfully given and not infrequently the lawmakers have been deterred from unwise action as the result of their periodical lectures on pharmacy.

At the recent annual meeting of the Botanical Club the following officers were elected: Addison Dimmitt, president; William Tafel, vice-president; Henry Gans, recording secretary; William Zibrod, treasurer; E. A. Bell, financial secretary. The committees were left to the president and have not yet been announced. The club finds a good executive officer in Mr. Dimmitt. He is an active and a progressive man and one who has the best interests of the club and of the trade at heart. At the meeting President Dimmitt reported encouragingly upon the outlook and gave a resume of the general work of the club for the past year, which demonstrated its usefulness in the field which it covers. The committees also made reports which reflected credit upon their work.

In an interview published in one of the Cincinnati papers, Col. Thomas H. Sherry, of this city, is credited with making the assertion that distillers of the better class of whiskeys in Pennsylvania and Kentucky would attempt to secure relief by asking Congress to establish warehouses in New York City where tax-overdue whiskey might be stored, instead of sending it to Germany. It seems that all the whiskey men of Louisville are not in favor of this plan. George W. Swearingen declares that the relief to the whiskey men might be compared to the relief afforded a condemned prisoner by the commutation of his sentence from death to imprisonment for life.

"If such a warehouse is to be established," says Mr. Swearingen, "it should be in Louisville by all means. It would be more satisfactory to the trade as well as to the dealers. Louisville is more central and by the establishment of such a warehouse here, if it is to be established at all, much expense would be saved. It certainly would be foolish to place the warehouse in New York when a point much more desirable and central could be selected."

The passage of the bill in the Lower House of Congress increasing the tax on whiskey ten cents a gallon has called forth a circular letter from the American Distillers' and Wholesale Liquor Dealers' Association, through its president, Mr. J. B. Wathen, of this city, and a copy of the letter has been sent to every member of the association. It requests the recipient to write immediately to both United States Senators and Congressmen protesting against the increase of the tax and giving reasons for such protest.

Charles Greer has organized a stock company for the sale of his medicines and the concern has added several new preparations to the list.

The new secretary of the Botanical Club is a popular young druggist and he will doubtless keep the members well posted on current happenings of interest to them.

Virgil Smith, for several years a traveling salesman for Arthur Peter & Co., has accepted a position with Renz & Henry as southern representative. It is understood that in future this old drug house will have no men on the road.

The druggists report business on the mend and look forward expectantly to the opening of the spring trade. The financial conditions in Louisville are brighter than for some time and there is a feeling that recuperative agencies are actively at work.

KANSAS CITY.

Kansas City, February 22.—The druggists of this city have been doing considerable business with the criminal court during the past month. About Christmas time the county prosecutor and his satellites, the constables, plotted to trap the druggists selling liquor in less than three-gallon quantities, without having licenses to retail. Some forty druggists were arrested and were taken before W. H. Browne, a justice of the peace notorious as a fee-grabber. There they were told that three charges had been filed against each and were advised to plead guilty and to be fined only \$1 in each case. One or two did so and found that the costs amounted to \$70. The others determined to fight the cases, knowing that if they did not the fee-grabbers would levy this species of blackmail without limit. When one case was won by the druggists, as told in the Era, the prosecutor took the matter before the grand jury and that body returned two indictments against each of the following druggists: W. H. Coover, F. M. Robb, J. L. Carnahan, Dr. E. S. Ragsdale, A. A. Dunton, Frank D. Palmer, Fred Crampton, P. D. French, George F. Berry, J. A. Gallagher, W. M. Ferguson, G. W. Rockwell, clerk for James T. Young, Algot Bjostrom, David Walker.

J. L. Carnahan was the first one tried. Judge Wofford instructed the jury that they must consider only the law and the evidence and that the subject of fee-grabbing must not be considered. Carnahan went on the stand and admitted that he had sold whiskey by the drink to the deputy constables, but avowed that they pretended to be ill. The jury found him guilty and fixed his punishment at \$100. He appealed. P. D. French was then tried and acquitted. The judge instructed that the proprietor was responsible for the acts of his subordinates, but the jury considered the fact that the liquor was sold by a clerk and so acquitted French. The other cases have been continued. The prosecutions have in a measure put a stop to the practices of druggists who in the past were willing to make their stores tipping houses. The law allows liquors to be sold on a physician's prescription or for medicinal, art, or scientific or mechanical purposes, and it is an easy matter for the druggists to keep within the law in doing a legitimate business.

Druggists in the liquor business in Kansas and Missouri are having a hard time of it just now. At Belleville, in the prohibition state, the women have begun a crusade against the liquor-selling druggists and are trying to prevent signers to the druggists' permits. They are likely to make it a dry town, as the law requires twenty-five women petitioners in each precinct before the permit can be issued. The women of Golden City, Mo., visited Druggist John Taylor a few days ago and requested him to show them his prescription files. They were seeking evidence as to the sale of liquors. He refused their demand and they left to interview the Mayor.

Governor Llewelling, of Kansas, has issued a pardon to L. R. Yates, C. V. Pyle and J. W. Pottenger, prominent druggists of Hiawatha, who were fined in the District Court of Brown county for violating the prohibition law, as told in the Era. The Hiawatha Law and Order League has set about taking legal steps to set the pardon aside, and has

employed special counsel for that purpose.

The death of A. M. Beardsley at Council Bluffs recently points a moral to all druggists. Mr. Beardsley had been a druggist in that city for twenty-one years and in that time had abundant opportunity to learn that carefulness must be the druggist's strongest characteristic. He was feeling ill one evening and so picking up a measuring glass he poured into it a little whiskey, which he drank. He was found dead in his bed the next morning, and an investigation showed that the beaker from which the whiskey was taken had been used to measure a poison and had not been cleaned. Mr. Beardsley's sad death certainly points a lesson in carefulness.

The usual monthly mistake where poison is taken instead of medicine or liquor because not in a distinguishing container comes this time from Joplin, Mo., where James Kirby, an old citizen, asked his little daughter to hand him a bottle of brandy, and she picked up instead a bottle of carbolic acid. The two bottles were alike, and Mr. Kirby took a draught of the contents before discovering the mistake. He died within an hour.

The druggists of Kansas City have again taken up their old fight against the extortion of the telephone monopoly. They are being aided by the physicians and by many of the merchants. Since the telephone patents have expired the Missouri and Kansas Telephone Company, which owns all the wires in this part of the country, is seeking a franchise for underground wires. This franchise, if granted, will only prolong the life of the monopoly, and the ordinance granting it has passed the lower house of the City Council. The druggists and others called a mass meeting at Turner Hall to discuss the matter and demand a clause in the franchise giving cheaper rates. C. E. Torcoran and G. Howard Willett spoke on behalf of the Kansas City Pharmaceutical Association.

J. C. Nidetzky was here recently representing F. Weber & Co., of St. Louis.

Daniel Whittiger has moved back to his old store at the corner of Eighteenth and Campbell streets.

C. E. White was here a few days ago representing the Maritime Manufacturing Company, of New York.

C. B. Gorm has bought Archibald L. Soper's store at the corner of Eighteenth street and Prospect avenue.

Mrs. Elizabeth Hicks has been made cashier in Schoen's new prescription drug store in the Rialto building.

George W. Houser, of Mine Latotte, Mo., has sold to Charles G. Houser, the drug store at No. 217 Indiana avenue, in this city.

H. H. Gregory is now conducting the pharmacy at 119 West Twenty-fourth street, succeeding Mrs. Georgiana C. Heathfield.

J. C. Fisher was in Kansas City a few days ago selling bottles and druggists' glassware for Dean, Foster & Co., of Chicago.

F. V. Perry, western agent for Johnson & Johnson, was in Kansas City a few days ago visiting the trade. He makes his headquarters in Chicago.

A dividend of 5 per cent has been allowed to the creditors of the Marshall Chemical Company by S. S. Winn, the assignee. It is now payable.

Mr. Von Hook has bought Harry Lee's pharmacy at the corner of Twelfth street and Indiana avenue.

The Salford Chemical Company, of St. Louis, has filed articles of incorporation with a paid up capital stock of \$50,000.

Druggist O. W. Krueger has gone to St. Louis to visit his aged father, W. E. Krueger, a druggist at No. 2837 Chouteau avenue, who is ill.

Frank Johnson will open a drug store in the building at the southeast corner of Independence and Elmwood avenues, where W. C. Lemon's drug store was burned out in January.

W. M. Robb, manager of Graham's pharmacy, at the corner of Twelfth and Main streets, fell from a cable car a few days ago and sprained his ankle. He will be confined to his room for several weeks.

A. B. Beck will soon open a drug store at the southwest corner of Sixth and Main streets. He is a member of the firm of Beck & Swearingin, who have long had a drug store at the corner of Sixth and Walnut streets.

Four trunks filled with smuggled opium were seized at Phoenix, Arizona, a few days ago. The narcotic was in the possession of Chang Some Chinese Company, and is supposed to have been smuggled in at Portland, Ore.

Pierre B. Davis, traveling agent for John Wyeth & Bro., of Philadelphia, spent a few days here recently. Mr. Davis is famous in other lines than as a salesman. At the meeting of the State Pharmaceutical Association at Excelsior Springs last June he won a diamond watch charm for climbing the greased pole.

The Casco Manufacturing Company was incorporated last week with a capital stock of \$20,000, fully paid up. The stock is divided into two hundred shares. S. J. Fitzhugh owns ten, F. V. Fitzhugh fifty, and S. J. Fitzhugh 139 as trustee, and Benjamin W. Livers one share. The company will manufacture druggists' and grocers' sundries.

Albert B. Zweifel, formerly at the corner of Seventeenth and Madison streets, has bought Joseph Brinkley's drug store at the corner of Twenty-first and Olive streets, and A. B. Soper has bought Brinkley's other branch store at the corner of Eighteenth and Olive streets. Mr. Brinkley will continue to run his main store at 2104 Vine street.

The Star Iron Company, of Indiana, has a suit pending against the Dr. Harter Medicine Company, of St. Louis, on breach of contract. The claim is that on February 15, 1892, the Dr. Harter Medicine Company contracted with the Star Iron Company for the construction of an iron tower at some point in St. Louis to be selected by the medicine company; the tower was to be 177 feet high, with elevator and steps; in consideration of which construction within four months the medicine company was to pay the iron company \$1,200. The Star Iron Tower Company claims to have made the tower in Fort Wayne, Ind., and shipped it to St. Louis, but charges that the medicine company has persistently refused to receive and pay for it. The answer of the Harter Medicine Company just filed enters a general denial of the allegations, and states that the tower for which order was given was never constructed in such a way that it was practical.

DENVER, COL.

Denver, February 23.—One of the most important features of last month was the banquet held on the 13th by the enterprising and comparatively young association known as the Denver Pharmaceutical Association. Preceding the banquet was a short business meeting, with discussion of trade interests, etc., and with the good cheer which followed the members present felt more like brothers than antagonists. C. M. Ford acted in the capacity of toastmaster for the evening. Among those present were: Charles S. Kilne, J. A. Uhlund, F. M. Hall, C. D. Barnes, C. M. Graves, W. A. Hover, G. W. Riethmann, J. W. Fleming, F. P. Miller, Frank P. Angell, John Kochan, John Stromberg, W. S. Haswell, S. G. Canfield, E. L. Scholtz, Charles M. Ford, C. Beukma, H. W. Grebe, W. W. Berteman and A. J. McAllister. This association (organized in 1885) has as its objects the maintaining of prices and the fostering of the pharmacy law (which was enacted in 1886), and as an association has met with a success in all its efforts that may well be envied by the druggists of other localities where the cutter is the bane of the druggist's life. Recently several members were arrested for the illegal sale of liquor. The cases were promptly taken up by the association, and it was proven that the sales were legitimate. Although there exists no well-defined law governing the druggist's sales, by the efforts of the association a legal precedent has been established. The funeral of the wife of member C. S. Prowett was attended by the association in a body. They also presented a beautiful floral wreath. Resolutions of sympathy were passed and tendered to Mr. Prowett.

Among business items and changes may be mentioned the following: George C. Starke, Jr., bought H. Counter & Co.'s store, Mr. Counter having retired from the business. O. J. Allen has moved his store from South Tremont and West Third avenue to South Ninth street and Tenth avenue. Mr. Allen is manager of the Boston Pharmacy, and will continue in this capacity, while his brother, A. H. Allen, will manage the South Ninth street store.

Frank N. Rogers, with the Scholtz Drug Co., has resigned.

H. Joe Ward, Colorado Springs, will be with Jackson & Co. about March 1.

E. L. Gallagher has opened a new store on Golden avenue, of which he will take charge personally.

The store belonging to Frank L. Church, deceased, Colorado Springs, has been sold to W. L. Fehlinger.

N. L. Traver has opened a new store at 500 Eighteenth avenue. This store was formerly occupied by O. F. Dana.

Frank C. Seaman bought K. Ramsey's "Pioneer" pharmacy on South Broadway. Patrick Carns bought out D. M. Titus, of 601 Santa Fe avenue.

The smiling countenance of W. G. Taylor, with Morrison, Plummer & Co., is to be seen here, and no doubt welcomed as usual throughout the state.

F. H. Arcularius, of Colorado Springs, secretary of the state board, has been confined to his bed for several weeks, but is showing signs of recovery.

F. E. Saunders bought out D. L. Ryan's store at Twenty-second and Grant. Mr. Ryan was not registered, and at one time had trouble with the board for this reason.

THE SOUTHWEST.

H. Moulton has given chattel mortgage for \$1,000 on his store at Kirwin, Ks.

A new drug store has been opened at Amazonia, Mo., by Beaver & Horton.

E. M. Ovren has purchased William Baer's stock of paints and oils at Aspen, Col.

D. A. Stebbins has bought out the interest of his partner, Mr. Van Corben, in the drug store at Council Grove, Ks.

J. T. White's drug store, at Millersburg, Mo., was destroyed by fire a few nights ago. The loss is estimated at \$1,500 with no insurance.

W. M. Casson's drug store at Montgomery, Mo., was burned in a disastrous fire in that town a few days ago. The stock was partially insured.

The Laclde Medicine Company, of St. Louis, has been incorporated with a capital stock of \$5,000, all paid. A. M. Link holds 250 shares, H. A. Dawkins 249, and W. Muswick 1 share.

Maud Matheson has opened a drug and grocery store at Fort Gibson, Indian Territory, and R. M. Walker has bought the drug and grocery store of R. L. Fuller in the same town.

Mrs. Margaret Wright is seeking in the courts at St. Joseph, Mo., to get a judgment of \$5,000 against Druggist Eugene Soper. She alleges that he made an error in filling a prescription for her and that she suffered in consequence.

The Ute Pass Paint Works in Colorado City, Col., were burned to the ground a few days ago. The loss, including building, machinery and stock on hand is estimated at \$75,000; the insurance, \$17,750. The fire started in the shipping room.

The drug stores of Slack & Day at Godsden and Selma, Ala., have been closed on attachment in favor of the Bank of Godsden. The claim is less than \$2,000, and was contracted by the Godsden house. The stores will probably be reopened.

The Frantz Drug Company, of Galena, Ks., was granted a charter and certificate of incorporation by the Secretary of State a few days ago. Its capital stock is \$4,000. The directors are J. E. Enterklim, J. W. Hutchins and W. E. Still, all residents of Galena.

Fire broke out in Barrett's drug store at Solomon City, Ks., not long ago. It destroyed the building, spread to Carter's drug store and to several buildings, all of which were burned to the ground. The loss on the drug stores was partially covered by insurance.

The City Council of El Dorado, Ks., has passed an ordinance forbidding the sale of cigarettes to minors under 16 years of age, affixing a license of \$300 for dealers who handle them, and it has become a law, having been signed by the Mayor and published in the official paper. A fine of not less than \$25 or more than \$100 was fixed for violators of this ordinance.

Two women giving the names of Mrs. M. D. Townsend and Miss Jane Townsend were arrested in St. Louis a few days ago. They are accused of having swindled W. A. Dell, a druggist at Jacksonville, Fla., out of a large amount of money. The women, it is said, opened a fashionable boarding house in the Florida city and by false pretences succeeded in securing large credit. They fled overnight to St. Louis, and when arrested had \$500 in money and a small fortune in diamonds secreted in their room.

PACIFIC COAST.

The City of Oakland is negotiating the location of a residential hospital.

During a fire at Sanger, near Fresno, Cal., on the 5th, Elmson's drug store was destroyed. The amount of loss is not known.

William M. Merkel, brother of H. M. Merkel, of Seattle, died at the Jefferson Hospital in Philadelphia a few days ago. Mr. Merkel was a druggist by profession.

Stockton, Cal., is having somewhat of a scare over the prospect of epidemical small-pox. Just why they should look for it this year more than any other time is not known.

The late Gustave Leplutz, of San Francisco, left an estate valued at \$60,000. He owned a half interest in a drug store at 25 Sutter street. His will divided his property among several charities and friends.

The firm of Dubbs & Goodwin has been organized at Seattle for the purpose of transacting a general drug and mercantile business. Capital stock, \$6,000. Incorporators are Henry Dubbs, John W. Goodwin and W. S. Dubbs.

The society for the prevention of vice is making it lively just now for a number of druggists in San Francisco. The secretary of the society is arresting a number of them on the charge of selling morphine without the necessary physician's certificate.

The Legislature of Utah has been acting, and the courts suggest what is known as the medical practice class law, by which it is the purpose to reduce somewhat the number of men practicing medicine in that territory who have not taken the trouble to obtain the diploma.

Dr. Oscar J. Macer, a practicing physician of San Francisco, who had two drug stores, has transferred them to Leon Guckenblum, of the wholesale drug firm of Mack & Co., for the benefit of his creditors. Liabilities of both stores are placed at \$45,000, with assets something less than one-half that amount.

The S. P. C. A. has been making a raid on dealers in live lizard jewelry, and as several of our local druggists had added the novelty to their line, they are having trouble with the society referred to. A determined effort will be made to put a stop to the habit of chaining up lizards to be worn as ladies' ornaments.

The following firms submitted bids to the hospital committee of San Francisco for supplying drugs and medicines for the coming year: Mack & Co., \$31,822; Langley & Michaels, \$38,010; and Clinton O. Worden & Co., \$48,888. The bid to Langley & Michaels for surgical supplies was accepted; and for drug supplies the contract went to Mack & Co.

C. W. Fisher owns a drug store at San Jose in which his night clerk, Ed T. Off, has his quarters. A few nights ago the clerk admitted a man in response to a knock at the front door, and while the clerk reached for the medicine which had been asked for the man turned off the gas, leaving the store in darkness. The customer then demanded the money, when the clerk resisted his demands, and a fight ensued. The plucky druggist was knocked down, but managed to fire two shots at the robber, which resulted in frightening him away before he obtained any booty.

ATLANTA, GA.

Powers & Heynolds, Maysville, Ky., are succeeded by Mr. Powers.

Snyder & Bingham, Decatur street, are succeeded by Mr. Bingham.

R. F. Watson will move into a new store corner Jackson and Houston streets. Bradham & Brock, New Bern, N. C., are successors to Dr. C. C. Greene, deceased.

S. E. Cox, corner Line and Hudson streets, Nashville, Tenn., is succeeded by H. Handle.

C. E. McKee, Greensboro, N. C., has purchased the business of J. Taylor, Washington, N. C.

William Strassy, deceased, corner of Preston and Ormsby streets, is succeeded by Joseph Millhiser.

Thompson & Hearne, Georgetown, Ky., have dissolved partnership, and are succeeded by Mr. Hearne.

The Winchester Drug Co. is the name of a new firm at Winchester, Ky., composed of Messrs. Imby and Ken.

Smith & Dozier will shortly open a branch store at R. F. Watson's old stand, corner Jackson street and Auburn avenue.

F. D. West, lately with the Lamar-Rankin Drug Co., is now traveling salesman for Wm. S. Merrell Chemical Co., of Cincinnati.

E. P. Price, of Greenville, Miss., will shortly open the Price Drug and Elder Manufacturing Co. in his city at 43 West Mitchell street.

The Spring City Elder and Vinegar Co., Huntsville, Ala., has commenced to rebuild its plant, which was destroyed by fire a few months ago.

Jacobs' Pharmacy has bought the business of Eugene Jacobs, 52 Marlette street, where the business of Jacobs' Pharmacy will temporarily be carried on.

In South Carolina "Hofen Weiss," or white hops, is under the dispensary ban, as the state chemist has reported that it contains 3.06 per cent alcohol.

W. A. Mathews has filed a petition for a receiver against the Haltiwanger-Taylor Drug Co. He alleges that the profits on the statements were not paid, but that a \$42,762 deficit exists.

Sol Cronheim, corner Whitehall and Hunter streets, has purchased the soda fountain of John Venable in the same store at sheriff's sale, and will continue the business as heretofore.

Lavonia, Ga., has one of the most enterprising men in the county. He is a practicing physician and druggist, proprietor of a canning factory, confectioner, farmer, and is now building a hotel.

V. S. Wolf, traveling salesman for the Columbia Chemical Co., Washington, D. C., was arrested in this city on a telegram from Lynchburg, Va., being wanted in that city for cheating and swindling.

At the commencement exercises of Meharry County Medical College, Nashville, Tenn., fifty-six negroes graduated. Forty-one in medicine, three in dentistry and twelve in pharmacy; of these twelve three were women, the first in the south to graduate in this profession.

The Southern Interstate Immigration Bureau has made arrangements whereby a party of medical and sanitary experts will make a tour of inspection through the south, the object being to correct the erroneous belief that the southern section is a territory of swamps and a hot-bed for the propagation of contagious malarial diseases.

BOARDS OF PHARMACY.

Maine Board of Pharmacy examined ten candidates at its Portland session February 15.

The North Carolina Board of Pharmacy meets in Raleigh, April 11 and 12, for the purpose of examining candidates for license to practice pharmacy.

Nebraska Board of Pharmacy at its session held in Lincoln, February 15th, examined twenty-five applicants, nineteen of whom passed successfully as registered pharmacists. They were Chas. E. Allen, Lincoln; Charles W. Anibal, Edgar; Frank Dufoe, Tecumseh; D. C. Mannagan, Craig; George S. Flory, Pawnee City; James J. Green, Curtis; L. Jordan, Elm Creek; P. S. Holtzinger, Nebraska City; G. S. Richmond, Jr., Alinsworth, W. D. Simmons, Beatrice; H. M. Wills, Omaha; O. S. Ward, Lincoln; W. F. Waggoner, Beatrice; C. A. Kaufman, Avoca; W. E. Paxton, Curtis; Rudolph Gabler, Columbus; L. A. Tyson, Elmwood; W. F. Dinsley, Lincoln. The next meeting will be held in Norfolk, May 9. The board will meet again in adjourned session in Hastings on June 5, when the State Pharmaceutical Association meets.

PHARMACEUTICAL ASSOCIATIONS.

Kansas Pharmaceutical Association will meet in Salina, May 29, 30 and 31. The Salina druggists have formed a local organization and an enthusiastic meeting will be the result of their united efforts. Emil Arner is the local secretary.

The Ontario Provincial Pharmaceutical Association met in Toronto, February 9. The following officers were elected for the ensuing year: President, L. W. Yeomans, Belleville; vice presidents, H. Watters, Ottawa; J. W. Gerrie, Hamilton; N. A. Bosworth, Stratford; secretary, G. A. McCann, Toronto; treasurer, H. Sherris, Toronto. The regular semi-annual meeting of the Council of the Ontario College of Pharmacy was held on the same day. The financial statement shows a net gain in the assets for the past three years of \$10,809.27, the total assets over liabilities being \$7,183.76. One of the questions of interest discussed was the recognition of the New York College of Pharmacy diplomas. The resignation of Mr. Jordan, of Goderich, as a member of the council was accepted.

The Monroe County (N. Y.) Pharmaceutical Association held its first annual banquet January 3 in Rochester. Sixty-five members of the association attended. A. H. Dewey, president of the association, acted as toastmaster. A letter of regret from Mayor Curran, who was to have responded to the toast, "Advantages of Organization," was read, and in his absence George J. John responded to the toast. Other toasts were responded to as follows: "New York State Board of Pharmacy," Mr. Haskins; "The German Pharmacist," in the vernacular of the Fatherland, Mr. Wagner; "The Druggist of Fifty Years Ago," Dr. Meyers; "Monroe County Pharmaceutical Association," Louis Wyeth; "Essence of Common Sense," Louis A. McGraw. Dr. Meyers, who spoke on "The Druggist of Fifty Years Ago," is 91 years of age, and was one of the first druggists in Rochester. The officers of the association are: A. H. Dewey, president; Lewis Wyeth, vice-president; A. R. Manning, secretary, and J. J. C. Curtis, treasurer.

The Connecticut Pharmaceutical Association, which has a membership of three hundred, held its annual convention in Hartford, February 6 and 7. Extended obituary reports were made in regard to Stephen Goodrich and other members of the association who have died during the year. The election of officers resulted as follows: President, James Duggan, of Norwich; first vice-president, A. Felton Wood, of New Haven; second vice-president, C. P. Gladding, of Hartford; secretary, F. Wilcox, of Waterbury, and treasurer, Lester H. Goodwin, of Hartford. The association selected the names of six persons to submit to the Governor of the state from which to select a member of the pharmacy commission. At one of the sessions Henry Canning, of Boston, president of the Interstate Retail Druggists' League, spoke in relation to the work of the league and the objects to be secured by such an association. George W. Cobb, of Boston, of the Apothecary Guild, spoke of the necessity of some organization among the retailers and the adoption of a schedule of prices. It was voted to hold the next meeting at Norwich.

COLLEGES OF PHARMACY.

The Massachusetts College of Pharmacy Alumni Association have made arrangements for an entertainment to be held at the college building the evening of March 13th, to which the members of the class of '94, with ladies, are invited.

The Minnesota University pharmacy students have elected the following class officers: Senior class—President, Alfred B. Hart; vice-president, Walter R. Lienau; secretary, Miller T. Bolton; treasurer, Bernard O. Leubner. Junior class—President, Chas. L. Chapple; vice-president, Theo. Cook; secretary, Miss Alice Houlton; treasurer, A. H. Hillard. Nearly every one of the twenty-eight students is a high school graduate.

The Louisville College of Pharmacy commencement occurred February 3 at Macaulay's Theater. The names of the graduates in the order of merit are as follows: Selby S. Coleman, James G. Epsy, Charles R. Odewahn, Alphonse R. Bizot, J. F. Buschmeyer, Dunning A. Wilson, W. L. Wolf, J. A. Constantine, John G. Schanz, J. Aud McCarty, J. L. Ames, John R. Baird, Jr., Charles Manemann, Fred. P. Herr, Horace O'Hurley, W. G. Pfeiderer, B. A. Kruse, Orville H. Browning, Walter W. Vogt, Charles A. Buzan, G. G. Laufer and J. R. Montgomery.

The salutatory was delivered by J. B. Wood, of the junior class, and the valedictorian by J. Aud McCarty.

Dr. Albert Muench, of the Alumni Association, distributed the alumni prizes, and Gordon L. Curry, Ph. G., delivered the alumni address.

The graduating class was given a reception in the evening.

NEW YORK COLLEGE OF PHARMACY.

Emil F. Imhof, who has been secretary of the senior class, has resigned that office. He found the duties of the position required so much time that his studies had to suffer, so he preferred to relinquish the office.

The students are anxiously watching for the next issue of the Alumni Journal.

That first issue was such a good one that many of the boys expressed the hope of success for the publication.

Henry Fendler has given up his intention of becoming a prize man. This sudden resolution on his part is thought to be due to the time spent in trying to prepare a bill for the legislature regulating the druggists' hours of labor.

The juniors have quite an easy time of it now. Only chemical laboratory and pharmacy are left.

There is only one young lady in the senior class this year.

The seniors are now especially fortunate in having such excellent teachers as Prof. Rusby and Prof. Coblenz, who give personal attention to the "quizzes." This makes it very interesting for the boys, for these professors are the ones who make out the final examination papers, and the students are thus enabled to get used to their ways of questioning.

Prof. Coblenz has promised, if possible, to take the seniors over to Jersey City to witness the manufacture of essential oils.

There are representatives of a great many nationalities in the senior class, among them men from Russia, Norway, Turkey, France, England, Canada and the West Indies.

The seniors have their new class pin. It is of shield form, with "N. Y. C. of P. Class of '94" and the twisted serpent in gold on a brown enamel background. The cost of the pin is \$2.75.

One student says there seem to be fewer students out in the pharmacies this year than last.

MICHIGAN UNIVERSITY NOTES.

We are glad to announce that Prof. Stevens has sufficiently recovered from his recent illness to be able to resume his duties in the pharmacy department. He has been confined to his house for nearly four weeks with a severe attack of gripe, which at one time threatened to lead into pneumonia. We sincerely hope his recovery is a permanent one.

S. R. Boyce, Ph. C. '90, instructor in pharmacy and pharmacognosy in the department of pharmacy, Kansas University, has obtained leave of absence for one year and is pursuing post graduate work in this school. He leaves for Kansas about the 25th of September to resume his work in the university.

We owe a debt of gratitude to Miss Myrta H. Kempf, of Montgomery, Alabama, who so kindly presented to the pharmacy museum excellent specimens of the leaves, fruit and seeds of the cotton plant and a block of cottonseed cake from which the oil had been expressed. The arrival of the specimens at once suggested the means for dressing a window that would be a pleasant change from the time-honored stock displays, yet would at once be attractive, interesting and highly instructive. One entire window might profitably be devoted to the exhibition and description of the cotton plant and the various commercial, medicinal and food products obtained from its organs. Arrange the blows, as they are popularly called, in a tasty manner and accompany them with a neatly lettered statement descriptive of the fruit and its contents. Mention the fact that the filamentous appendages (called coma) which are attached to the entire surface of the seed, and which aid in its dispersion by the wind, form the cotton of commerce. Then

again, display a liberal quantity of the naked seeds and call attention to the early methods of separating the cotton, compared with the present rapid separation by Whitney's Cotton Gin. Place side by side bottles of cottonseed and Italian olive (7) oil, and mention that large quantities of the former are exported to Italy only to return as genuine Italian olive oil. An excellent opportunity for giving an object lesson upon the purchase of pure salad oil thus presents itself. It might be considered well to extend the scope of the display to include butter and lard substitutes and cottonseed oil soaps. Highly magnified drawings of the structure of the cotton and the wool fibres would certainly attract popular interest. Then, there is the cotton root bark, together with its pharmaceutical preparations to complete the exhibit. The general effect of the whole will be greatly improved by generous drapings and settings of ordinary and absorbent cotton and cotton dressings. To be sure, some expense and trouble would be incurred, but it would form a part of a system of legitimate advertising that would reflect credit upon the pharmacist and the profession.

A representative collection of organic chemicals known as Dr. Witte's Collection for Colleges, embracing two hundred important organic products of the aromatic series, has been donated to the School of Pharmacy. This collection was offered for sale at the close of the Columbian Exposition, and through the public spirit of Chicago alumni of the School, was purchased for this destination. The University is indebted firstly to I. Giles Lewis, of the drug house of Robt. Stevenson & Co., of 92 Lake street, Chicago, for putting through this purchase. Mr. Lewis was one of the very earliest students of chemistry and pharmacy in the University, and is one of the most spirited of the alumni. The specimens are contained in glass-stoppered bottles on foot, neatly capped and mounted in trays of uniform appearance, thus giving to the whole a decidedly pleasing effect.

The second Friday in February of each year marks a period of great mental activity and anxiety for the student and increased labor for the teacher. Four and one-half months of hard work is crowned by examinations which are the practical tests that determine the fitness of the student to further pursue his study. Now that the semester is closed, those that have safely run the gauntlet look forward to the work with great pleasure. The senior pharmacy students continue the study of pharmacognosy and pharmacology through the remainder of the year, and take in addition, lectures and demonstrations (together with daily laboratory practice) in organic analysis under the direction of Prof. Gomborg. Prescription work in the class-room and behind the counter will receive their daily attention under Prof. Stevens' supervision. Subjects are already being selected in order to afford ample time for library reading. The juniors are at present engaged in weighing and wrapping all the drugs required by them in the manufacture of pharmaceutical preparations which will occupy their entire time every afternoon during the semester. Their mornings are entirely devoted to microscopical botany (lectures and laboratory work) pharmacy lectures and physics.

CORRESPONDENCE.

We accept no responsibility for the views and utterances of our correspondents. Contributions must carry full name and address of the writers, which, however, will not be published, if so requested. Copy should reach us ten days in advance of date of issue.

APPRENTICES IN ENGLAND.

To the Editor.—Referring to the address of Mr. Martin, of London, upon the state of pharmacy in the United States, which appeared in your column, and the various subsequent comments thereon, I can perhaps give some additional information upon the subject to your readers. Your last issue contained a fairly accurate account of the compulsory examinations, viz., the Preliminary and Minor, the passing of which entitles one to practice pharmacy in England and Scotland. Ireland has a separate law with which I am not familiar. But a valuable feature of the English practice (not law) is a five years' apprenticeship, duly legalized by a written contract or indenture signed by the parents or guardians of the apprentice, and almost invariably accompanied by a money payment to the pharmacist, varying in amount from \$100 to \$500, which sums are equal to twice what the amounts would be here, owing to the difference in the purchasing power of equal sums of money in the two countries. During the period of apprenticeship board and lodging are furnished to the apprentice, who usually resides in the house of his preceptor, where he is treated as one of the family. In the case of large firms in the principal cities this is often compounded for a money payment equivalent.

The pharmacist immediately begins a course of daily instruction, both practical and theoretical, extending as far as the scope and size of his business will allow and also as far as his own ideas of his obligations will permit. Should, however, the apprentice be dissatisfied with the amount of instruction received, he may at any period of his apprenticeship appeal to a court of law, either to annul his indentures or exact pledges from his employer for more complete instruction. This is not infrequently done. To shorten the story, when the apprentice approaches the end of his five years' term he is twenty-one years old, and often well equipped by private study and attendance at botanical and chemical lectures and practical work in the laboratory in his leisure hours to pass the Minor examination, he having generally passed the Preliminary at the beginning of his apprenticeship.

The chief difference between English and American pharmacy is in the preliminary education of the apprentices, in England they having been well grounded in the general branches, such as are pursued at a first-class school, up to the age of 16, and with a view to their future lives giving special attention to the Latin language.

During their apprenticeship they have much more leisure as shop hours are much shorter and Sunday work almost nil. Of course there is some variation from worst to best, but, generally speaking, the English apprentice is recognized as less of a machine and more of a human being and a gentleman than his American contemporary. Farther, he is recruited from a higher plane of society and his family is generally possessed of some amount of capital.

I will not take more of your valuable

space upon this subject at present, but will mention that my knowledge of English pharmacy is derived from personal observation during several visits to that country and twenty years' reading of the London Chemist and Druggist. In another letter I will show you some of the glass houses, the dark sides of the picture.

Respectfully,

THOS. LATHAM.

New York, February 13, 1894.

ONE WAY OF PROTECTING RETAIL DRUGGISTS.

To the Editor:

Perhaps you can enlighten me, through the columns of the Era, on a few points that now seem exceedingly indistinct to me. We hear all around us, in drug circles, the cry of hard times, no business, money tight, cut rate stores hurting the business of the legitimate pharmacists, etc., and we wonder what the outcome of it all will be. For the latter obstacle (cut rate stores) we naturally look to our local jobbers for protection to assist us, in a measure, to overcome. I believe, if I mistake not, at the last meeting of the N. W. D. A. and the manufacturers of patent medicines there was some talk on the part of the former to try and remedy this. What are the results thus far? Since said meeting I notice that quite a few patents have advanced in price, and instead of paying former prices there is an advance of from 5 to 15 per cent on them with a favorable outlook of others being included in the list. And all this in the face of hard times. Now comes the question—are these advances the direct results of the meeting between jobbers and manufacturers; if so, how do they benefit a retailer? It seems to me that while the retailer is obliged to pay the advance the only one benefitted thereby is the wholesale druggist, and doesn't that look like exceedingly small protection for a retailer? Another point more serious, at any rate in the end more detrimental to retail druggists, is the fact that certain local wholesale druggists are supplying too many corner groceries with full lines of the more popular patent medicines, and every grocery in my vicinity handling these goods are openly cutting prices, the very thing our jobbers are pretending to fight, yet keep on supplying them. Is it without the knowledge of the jobbers that this cutting is done? It is certainly done openly, and to the direct injury of all surrounding druggists. One step farther, several of these medicine-selling grocery stores have a bar attached where, among other drinks, they offer Paine's Celery Compound and Hood's Sarsaparilla at so much per dose. Great Scott, what is the legitimate pharmacy coming to—with our local jobbers supplying all corner grocers who are openly cutting (and by that I do not mean the advertised cut-rate stores of the city) with everything in the medicine line, the prices on patents advanced, when one can ask his friends to step in and "have something," either Paine's Celery, Hood's Sarsaparilla, and the like? I think it about time for retailers to cry Halt! It seems plain to me that, if these certain local jobbers would see that their goods went to legitimate druggists rather than catering so much to the grocery trade, and would adhere more closely to the sign displayed in their offices, viz., "Positively No Goods Sold at

Retail," it would be "one way of protecting retail druggists," and while they seek to protect us, let them make a start right here at home.

Feb. 2, '94.

RETAILER.

CANADIAN PHARMACY NOT SO BAD.

To the Editor

I would like to reply through the columns of your valuable journal to an article in your issue of February 1st by one who signs himself "A State Board of Pharmacy Man," and who attempts to criticize Canadian pharmacy. He gives his experience as an apprentice in a Canadian store, and asks Era readers to accept it as a typical pharmacy of Canada. He writes of the crude methods employed there, and gives these as the results of "most lofty college training." Now, reader, were these errors of which he speaks due to ignorance, or were they due to the fact that his preceptor was not as conscientious as he should have been? Certainly the latter, for had he never been in a college of pharmacy, his experience as a pharmacist would have taught him to employ better methods. He was probably prompted by avarice, or in other words, "penny wise and pound foolish." State boards of pharmacy and colleges of pharmacy will always have their honest and dishonest pharmacists, but colleges, by their teaching, will produce few of this dishonest class, and will have the advantage of better protecting the public from ignorance, which is so prevalent among those holding state board of pharmacy certificates.

Canadian pharmacy, I will admit, could be much improved, but I must say it is making rapid progress under present regulations, a great deal more than can be expected from our state boards of pharmacy. Their requirement of a four years' apprenticeship, a high preliminary education before entering college, a junior and senior term at college, a junior examination to be passed before entering upon the senior course, and then a rigid examination before graduating, consisting of written, oral and practical laboratory work, places Canadian pharmacy in a position to command respect as is evidenced by the fact that Canadian graduates find ready employment in the United States. These requirements have been secured through the Canadian pharmacy laws, which to my mind set an example that it would be well for us, as pharmacists to follow. I speak more particularly of the laws adopted by the Province of Ontario.

Yours respectfully,

REGISTERED PHARMACIST
for Michigan.

Pt. Huron, Feb'y 8, '94.

A new manufactory of germicides has been established in Buffalo. The article is called Kahle's Bacilline and already commands a very good sale. The establishment which is known as Francis U. Kahle & Co., has been rather unfortunate. It was located last year at Warren, Pa., but no sooner was the manufactory fairly begun than it was burned out. The transfer to Buffalo was made late last fall. The location is within half a dozen rods of the Ferry street station of the New York Central Railroad, so that transportation facilities ought to be of the best. Already quite a large force of operatives is employed.



FARRAND, WILLIAMS & CLARK.

RICHARD P. WILLIAMS.

HARVEY C. CLARK.

JACOB S. FARRAND, JR.

See also page 231.

THE history of the house of Farrand, Williams and Clark, through its many changes up to its present position, has been coincident with that of the city of Detroit itself, nearly back to the founding of it. Way back in 1819 or 1820, when Detroit was but a trading post, M. D. Penniman began to deal in drugs. Later he took a partner in the person of Justus Rice, and the firm was styled Penniman & Rice. Mr. Rice subsequently became the owner of the business, and himself took a partner in Edward Bingham, but from the spring of 1830 to 1836 Mr. Bingham was alone. In the last named year J. S. Farrand, an employe, was taken into partnership, the sign reading E. Bingham & Co., and thus the firm continued until 1841, when Mr. Farrand left to enter other business. The following year Mr. Bingham was burned out, and the house ceased to exist, but in 1845 it was re-established by Mr. Farrand, and

in 1856 W. W. Wheaton was admitted under the style of Farrand & Wheaton. Mr. Wheaton retired January 1, 1858, and in the spring of 1859 A. Sheley became a partner, firm of Farrand & Sheley. In 1860 W. C. Williams, who had been with the house ever since boyhood, was admitted to the firm, which now became Farrand, Sheley & Co. In 1871 Harvey C. Clark, also an old attache, became a partner, and the firm name became Farrand, Williams & Co. J. E. Davis was admitted as a partner February 1, 1874, after being in the employ of the firm for many years, but in January, 1881, he sold his interest to R. P. Williams. In January, 1884, Jacob S. Farrand, Jr., and A. S. Brooks were admitted to the firm.

The jobbing business of the house dates from the year 1845, although for many years after this it continued to carry on a flourishing retail and prescription trade. Since 1862 its business has been exclu-

sively wholesale. The location of Mr. Farrand's original store, occupied in 1845, was on Woodward avenue. In 1851 he removed to 96 Woodward avenue, where the business continued to be conducted until the fall of 1872, when it went into more commodious quarters in a new building erected by the firm at the corner of Larned and Bates streets. Farrand, Williams & Co. continued until February, 1880, when a dissolution of the firm took place and Farrand, Williams & Clark established themselves at 32 and 34 Woodward avenue, buying out the house of John J. Dodds & Co. They remained at this location until Feb. 16, 1894, when their building was destroyed by fire as related on page 231. The following year Jacob S. Farrand, Sr., died, since when, with no change in the firm name, the business has been conducted actively by the gentlemen whose portraits are given here. Mr. Farrand's widow retaining a financial interest in the concern.

TRADE COMMENT.

DIRECTORY SUPPLEMENTS.

The third (1894) edition of the Era Druggists Directory has now been issued, and the regular publication of the "Supplements" to this new edition was begun in the (February 1st) issue of The Pharmaceutical Era. We solicit from our readers information regarding any changes among the drug stores in their locality, such as new stores, removals, sales, failures, deaths, etc., etc. Address

D. O. HAYNES & CO., Publishers,
DETROIT, MICH.

It's a poor rule that doesn't work both ways.

The man who works with a will—the Probate Judge.

When a man talks into a telephone what he says goes.

The toilet soap industry of Japan is rapidly increasing, and the quality of goods manufactured is said to be quite up to the American and European standard of taste in such matters. The exports from the Flowery Kingdom in 1892 were 50 per cent more than in 1891.

A nickel cigar called The Oath is being pushed in Ohio by placards reading: "Take an Oath, and tell the truth if you ever smoked a better nickel cigar." One of our exchanges says that this is not the first time that an oath and a nickel cigar have run in company.

The United States now has in circulation more kinds of money than ever before. There are gold coin, silver coin, silver certificates, old United States notes, treasury notes of 1890, outstanding national bank notes, gold certificates and legal tender certificates used by banks.

Cigars and cheroots to the number of 4,330,298,386 were manufactured in the United States during 1893. In spite of these almost inconceivable figures this shows a decrease of 423,261,631 as compared with 1892. During 1893 the output of cigarettes was 3,232,715,400, which is an increase of 219,605,240 over 1892.

The space to be occupied by the principal countries of the world at the Antwerp exposition has been allotted as follows: United States, 150,000 square feet; France, 120,000 square feet; England, 75,000; Germany, 75,000; Italy, 40,000; Canada, 30,000; Austria, 30,000; Russia, 16,000; Holland, 13,000; Belgium, 15,000.

It will be remembered that the case of the State of South Carolina against the Commissioner of Patents for his refusal to register the trade mark "Palmetto" for use upon the liquors handled by the state was a short time ago decided against the commissioner by the Supreme Court of the District of Columbia. It was held at the time that the commissioner had no discretion in the matter and could not decide as to the right of the state to engage in trade with foreign countries but should only decide as to whether the state had a right to the trade mark as such. This decision has now been reversed by the Court of Appeals, which holds that the duties of the commissioner are not simply ministerial, but call for the exercise of judgment and discretion, and that in this case the court can find no justification in the claim that the state has a right to conduct a traffic in liquor outside of its bounds.

The expenses of the United States government during the twelve months ending December 31, 1893, amounted to \$382,454,897.37, and the receipts were \$312,895,172.00 during the same period. It is safe to say that an ordinary druggist attempting to do business upon the same plan would find himself in the hands of the sheriff inside of thirty days.

A new plan of railroad tickets was adopted by Hungary recently. The traveler will make out his own ticket. The government will sell railroad marks (or stamps) and supply the blank cards. The passenger will, when he desires to take a journey, write on the card his name, starting point and destination, and affix as many stamps as the published list of fares calls for.

The Court of Appeals of the District of Columbia recently decided the case of Schaeffer against the Commissioner of Patents for refusing to issue letters patent for a new coloring material consisting of a compound of alizarin and boracic acid, by affirming the decision of the commissioner. The application was rejected on the ground that such a combination had been described in Crooke's Handbook, published in 1874. The court held that while prior publication, of a nature to defeat a claim for a patent, must describe the process in such a manner as to enable persons skilled in the art to repeat the process claimed without assistance from the claims and specifications of the applicant for the patent, it was not necessary that such prior publication should be so specific as to teach how to make the article, but the real requirement was that the thing sought to be patented should be described, and not the steps antecedent to its production.

The claim that carbonation kills the bacteria which might naturally or by accident be present in waters used as popular beverages, has always been received as a statement emanating from interested parties, put forth with the object of increasing the sale of such goods. It is quite gratifying, therefore, to learn that Dr. Charles Slater, bacteriologist to St. George's Hospital, London, has recently published a paper containing the results of a careful examination of carbonated waters. Several experiments showed that a cubic centimeter of water after twenty-four hours of carbonation contained from 400 to 3,000 organisms, while in the course of three weeks these had almost entirely disappeared, and it was noted that the most dangerous pathogenic organisms, such as those of cholera and typhus, were rendered harmless in from one to two weeks. From these investigations it was concluded that "a carbonated water made from a proper source, and kept for more than fourteen days, appears to offer complete safety from the usual water-carried diseases." This apparently authoritative announcement will undoubtedly do much to extend the use of carbonated beverages, and manufacturers and dealers who will obtain water from proper sources, sterilize it as thoroughly as possible by distillation or filtration, and store their finished carbonated product from two to three weeks before placing it upon the market, will be safe in assuring their patrons that the use of beverages prepared in this manner is conducive to health, both as remedial and preventive agents.

ADVERTISING HINTS.

The use of current events of an exciting character as a means of calling attention to advertisements appears to be enjoying a renaissance. But a few years ago the public was afflicted by the appearance of articles of a decidedly sensational character, which disgusted the reader by more or less covert suggestions to take somebody's pills. This method of advertising quite properly exhausted itself after a brief season. The revival referred to is, however, of quite a different character. It is apparently in abler hands, and for this reason the ideas upon which it is based can be commended as worthy of imitation within proper limits. The most unique instance of this sort is that furnished by the J. S. Kirk Soap Co., of Chicago, whose advertising expert selects for publication in the advertising columns of the daily papers important public events of the previous two or three days, such as the silver debate in congress, the Hawaiian matter, the Brazilian trouble, Corbett and Mitchell, illustrates them in a humorous style, and follows a few remarks of the same character by a clever reference to the goods of his firm. It is needless to say that these advertisements are read with interest and satisfaction, and the general reader looks for these "ads" as regularly as the merchant looks for the market reports.

Another instance in this line is that furnished by a Chicago firm in an advertisement in a recent number of the Sportsmen's Review. A photographic reproduction of a clipping from a daily newspaper is given prominence in the center of a page. The clipping refers to a meteoric display at Wilmington, N. C., in which a local colored astronomer claims to have seen the letters "W. W. W." plainly outlined in the heavens. At the top of the page appears in one line in full black face type the name of the firm—The Western Wheel Works—while at the bottom of the page is simply the office and street address of the firm. The effect of the advertisement is not spoiled by attempting to explain the obvious connection between the initials of the firm and the phenomenon referred to in the clipping. The consequence is that the reader finds something that attracts attention, and then makes an impression on the mind by the studied neglect of the advertiser to take full advantage of the incident. These examples are cited merely to illustrate one of the many avenues through which the modern advertiser is now seeking to win public attention. The successful advertiser must now be a close student of the world's daily history, and be prepared to take advantage of its important events.

A Cicero, Ill., drug clerk helped himself a little too freely to alcoholic beverages in his employer's stock, and wishing to sober up quickly, took certain drugs with that end in view. The result, however, was opposite to what was expected and for a time his insane antics occasioned much apprehension in the minds of people around, and a few shots from a revolver did not have a particularly quieting effect. Hard-hearted policemen arrested him and the judge imposed a heavy fine.

Burglars abstracted \$50 from the store of druggist H. N. Clark, at Cornwall, N. Y., January 20.

FARRAND, WILLIAMS & CLARK.

About 6 o'clock on the morning of February 16 fire was discovered in the building occupied by the wholesale drug firm of Farrand, Williams & Clark, 32 and 34 Woodward avenue, Detroit. The cold weather and the deep snow delayed the arrival of the fire department somewhat, and in a short time where once stood the commodious quarters of a successful business house there remained but blackened ruins to tell the story of a disastrous fire. The origin of the fire can only be conjectured, as there was no one in the building at the time. No watchman was employed and the engineer had not yet arrived. The fire was reported to have been preceded by an explosion and to have started on the fourth floor, where it quickly spread, and in spite of the steady streams of water poured into it, the building was soon entirely gutted, and the upper floors and stock had fallen with a crash to the basement.

The building was a large double store, five stories high and modern in style and build, its thick walls preventing the conflagration spreading to the adjacent property. It was valued at \$40,000, with an insurance of \$30,000. January 1 the stock inventoried \$160,000, upon which there was an insurance of \$120,000.

As noted in these columns a short time ago, Farrand, Williams & Clark were making arrangements for an early removal into their own building on Larned street east, formerly occupied by the old firm of Farrand, Williams & Co. Workmen had been engaged night and day to get the building into shape for occupancy. This force was immediately increased to about 100 men, and the firm commenced at once to fill orders in this building. It was certainly doing business under adverse circumstances, but the same enterprise which has ever actuated the business policy of the firm was displayed upon this occasion by the following characteristic note, mailed to customers before the flames were yet extinguished:

Detroit, Friday, February 16, 1894, 6:10 a. m.—Our entire stock of drugs, etc., is destroyed this morning by fire. 9 o'clock a. m.—We have opened our office at our old stand, 11-13-15-17 Larned street east, and are now able to attend to business. Send us your orders; we will give them our usual prompt attention.

Offices were also opened in room 18, Campan building, where the correspondence and general business of the house will be, for the present, transacted. Expressions of condolence were received from their many friends in the jobbing trade, the city jobbers expressing their sympathy and offering assistance in person. Following are a few of the letters and telegrams received:

TELEGRAMS.

New York, February 16.

We extend our heartfelt sympathy in your trouble.

NEW YORK QUININE & CHEMICAL WORKS.

Columbus, February 16.

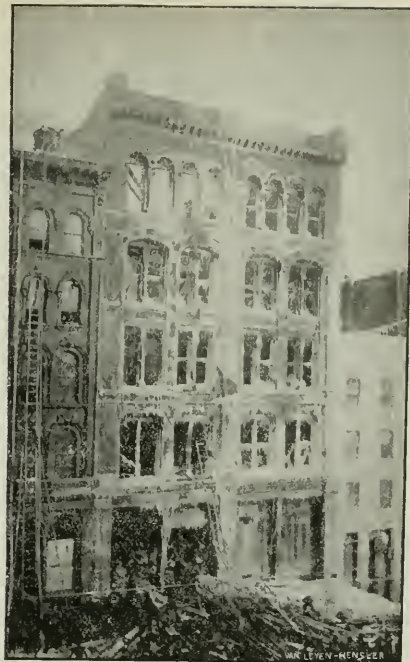
Regret to learn your great loss. Command us if we can assist.

THE KAUFMANN-LATTIMER CO.

Toledo, February 16.

We are sorry to learn of your fire. You can have any part of our stock.

THE WALDING, KINNAN & MARVIN CO.



RUINS OF THE FARRAND, WILLIAMS & CLARK FIRE.

Grand Rapids, February 17.

We extend our sympathy and offer, if any, service possible for us to give.
HAZELTINE & PERKINS DRUG CO.

St. Louis, Mo., February 16.

We sincerely regret to hear of your loss through fire. Can we be of any service?
MALLINCKRODT CHEMICAL WORKS.

Cleveland, O., February 16.

Have just learned of your loss, and offer our sympathy. If we can be of aid to you, do not fail to call upon us.

BENTON, MYERS & CO.

Cleveland, O., February 16.

Just learned of your loss. Accept sincere sympathy and offers of assistance.

STRONG, COBB & CO.

LETTERS.

St. Paul, February 16.

Gentlemen—We are extremely sorry to hear of your loss by fire, and that, too, just as you were removing. We trust, however, that you will be enabled to remove into your new quarters with a complete new stock, and your loss will be very little, if any, after settlement is made.

Yours respectfully,
NOYES BROS. & CUTLER.

Chicago, February 16.

Gentlemen—We regret to hear of the destruction of your store by fire. Having suffered a like experience more than once, we can fully sympathize with you. If we can be of any service to you, it will be only necessary for you to command us.

Very truly yours,
LORD, OWEN & CO.

St. Louis, February 17.

Gentlemen—We regret to learn that you had the misfortune of having a fire in your establishment, and trust that the loss is not serious, and also hope that you will soon be able again to resume business.

Sincerely yours,
MEYER BROS. DRUG CO.

St. Louis, February 17.

Gentlemen—We were very sorry to notice in last night's papers that your establishment has been burnt out. We beg to tender you our sincere sympathy, and if we can be of any service whatever to you, please command us freely. We remain

Yours truly,
HERF & FRERICHS CHEMICAL CO.

Chicago, February 17.

Gentlemen—We regret to hear of your loss by fire, and trust that you will be in shape to attend to business in a short time in your new headquarters. We remain,

Yours respectfully,
MORRISON, PLUMMER & CO.

Chicago, February 17.

Gentlemen—We hear with the greatest regret of the destruction of your establishment by fire—having ourselves passed through the fiery ordeal three times (though, fortunately, neither time the fire having originated in our own store)—we can fully sympathize with you, understanding what it means to gather together a complete drug stock. Hoping you are fully insured, and assuring you that if in any way we can be of any service to you, we will gladly have you call upon us, we are

Very truly yours,
PETER VAN SCHACK & SONS.

DRUG STORE MANAGEMENT.

There are two things of paramount importance in the practice of pharmacy which claim the attention of the beginner at the outset of his career, and these are, the location of his place of business and the proper selection of his stock. These two steps, which are of such a self-evident character that their consideration seemingly involves a discussion of the commonplace, are in reality the foundations upon which every aspirant for success hopes to erect a substantial structure. A careful canvass of all the factors in the problem of starting right, will therefore do much to forestall the necessity of experiencing what is popularly known as having one's "eyeteeth cut" by a series of failures or a doubtful success. It is perhaps unfortunate that the business life of the present is really a highly organized system of warfare, and that the beginner must enter it handicapped by inexperience, and expect to do battle with hardened warriors. But such is undoubtedly the situation, and an early recognition of this fact will be all the more serviceable.

One of our most honored and beloved poets has pronounced a beautiful benediction upon the one who is able to make two blades of grass grow where but one had grown before, but the man who attempts to make this application to drug stores, and cause two to exist where but one existed previously, is apt to learn that the laws of production operate under variously strange conditions. He will at the outset encounter the persuasive influence of those who have goods to sell to him at the cheapest of prices, and those of the people who desire to buy his goods at prices which are correspondingly cheaper, to say nothing of his competitors, who resent his intrusion as an act which may cut their means of subsistence in two. To the beginner therefore, who has the money, necessary education and a desire to engage in the drug business for himself, some advice may be offered which will possibly be of more service than an experience gained through trial or failure.

Leaving the question of qualification and inclination to one side, the important one of money, is the one to most seriously engage attention. Should the beginner run in debt for a portion of his stock? As it is estimated that 90 per cent of those engaging in business fail, and our mercantile agencies report every year an alarming list of failures due to want of capital, it is safe to answer this question with a decided negative. Instances are plenty in the biographies of successful men when this rule was not observed, but the biographies of unsuccessful men which are, to use a Celtic expression, never written, are so full of instances of the opposite course, that the rule "Never go in debt" can be cited as a safe one to follow. There is safety in the wisdom of Ben Franklin, who both preached and practiced the doctrine of frugality and saving. Assuming that the fact is readily admitted that the debtor is more or less a slave to debt, and that a little surplus capital is like the motive power to a balloon, the placing of capital in the drug business, with the expectation of both making a living and providing against inevitable rainy days and old age, is a proceeding of great moment.

The desire of every student, clerk or apprentice to some day become the proprietor or a pharmacy is a laudable one, but this desire should always be checked until

the opportunities are clearly propitious, and until the demand of the public is unmistakable for the establishment of a new institution of this sort. This question is settled by legal enactments in some foreign countries, where the number of apothecaries is made to bear a relation to the population, but in the United States the individual is left to decide this question for himself. In cities most of the new stores are started in outlying districts and suburbs, and in looking for a location under such circumstances the territory from which trade is to be drawn should be carefully gone over. The location of competitors should be noted, and the prospect of growth in population, means of transit, prices of real estate, character of the people, the location of physicians, are all points to be seriously thought of. In a country town the same questions must come up for settlement, and where the trade is to be divided with one or more competitors, their personal characters as business men should be considered, and conclusions reached as to their trade-drawing and other qualities which affect their standing in the community.

It is not inferred that these questions are not considered by everyone starting in business, but they are simply referred to for the reason that they should be given greater attention. There is enough at stake for some downright hard study upon all their phases.

A location having been decided upon, the buying of a stock is the next step of importance. In purchasing a business already established the same precautions should be observed as in choosing a location and the apparent value of the trade carefully estimated. Books and accounts of the establishment should be carefully gone over to ascertain the income and expenses, and if a credit business is done the methods of collecting should be investigated, as a new proprietor will have uphill work in the face of a previously established loose system of making collections. An absence of correct bookkeeping methods in any pharmacy, however small, should at once create a suspicion that its proprietor does too insignificant a business to be worth recording, or is not running his business for all there is in it. Inventories should also be carefully scrutinized for evidences of growth in the business. The involving of an old stock of goods with perfect equity to all parties concerned is an exceedingly difficult operation, especially when the accumulations of old stuff, which seem inseparable from the drug business, are considered. This can only be accomplished with any degree of satisfaction when a spirit of concession and willingness to average things actuate both parties. Staple drugs can usually be estimated at market rates, but accumulations of old shelf-worn out-of-date patent medicines, present many distracting problems for solution. Ordinarily the greatest concessions should be expected from the seller on this class of goods. In buying and selling an old stock of drugs where both parties desire to obtain the best bargains possible, the employment of an impartial referee who is well acquainted with values is a proceeding which is advisable in all cases. In purchasing a new stock there are of course hundreds of articles which every drug store must have but the outlay for many preparations may be limited by consulting the requirements of neighboring

physicians. By pursuing this course from the outset the pharmacist may often accomplish a great deal by interesting the medical profession in pharmacopoeial preparations, which the druggist can manufacture and furnish with satisfaction to both parties. This matter should, however, be undertaken with the greatest delicacy, as the medical profession as a rule is not disposed to take advice from a beginner in pharmacy, and when suggestions of such a character are offered they should be presented in a spirit which recognizes the propriety of a choice of remedies being left to the physician.

As regards the buying of fixtures the question of financial resources and utility should govern. It is quite true that the public has been educated to expect great artistic effects from the interior arrangements and furnishings of a pharmacy, but a reputation for first-class goods and courteous treatment will cover a multitude of such apparent deficiencies. Great attention should be paid to the storage of drugs and convenience of access to them. Much loss and damage results from a neglect of these precautions, and as a rule money expended for the best containers embodying the latest improvements is a good investment.

In conclusion the beginner in the drug business, who will consider every possible point in choosing his location, use every precaution in buying, and will remember that inexperience will be enough of a bar to progress without the encumbrance of debt, ought to be reasonably sure of success.

SOME MERCHANTS DO BUSINESS THIS SAME WAY.

A curious instance of the tenacity with which the sturdy Scotchman clings to a habit when once formed, is given in the Edinburgh Scotsman: Once, in the Foreign Office, a new chief was taking possession of his rooms, and he came face to face with a soldier, pacing the passage. He marveled because the guard gave the word: "Keep to the left." "Why do you say: 'Keep to the left?'" "I don't know." The statesman investigated the singular affair, and, after not a little trouble, a clue was found and followed. Fifty years before the passage had been painted, and an orderly had tramped it with orders to bid everyone to "Keep to the left," and avoid the wet paint. This order had stood unchanged and practically unquestioned for a term of fifty years.

OUR MONEY

The total amount of paper money in circulation in the United States upon December 31, 1893, was \$1,159,156,065. Of this amount \$67,220,000 was in ten-thousand dollar bills of the following classes: Gold certificates, 2,833; currency certificates, 3,888; United States notes, 1. There were three United States notes, 2,833 gold certificates, and forty-one currency certificates of the five-thousand dollar denomination. The ten-dollar notes furnish the largest item in circulation, the amount being given at \$308,208,736. Five-dollar notes amount to \$250,203,499, two-dollar notes to \$30,508,653, and the dollar notes to \$39,568,642. It is found that fractional parts of a dollar to the extent of \$27,840 are still in circulation, while the comfortable amount of \$1,000,000 is set down opposite the item "unknown, destroyed," in the treasurer's report.

Written for the Era.

SOME PRACTICAL SUGGESTIONS FOR DISINFECTION.

By L. Sollmann.

First, to prevent the breeding of disease germs:

Damp Cellars—Put five pounds of coppers in a bucket, fill with hot water and wash the cellar walls with this solution. If the cellar has a paved or cement floor wash the floor also. If it is an earth floor sprinkle over it crushed coppers, a pound to every 100 square feet.

Water Closets—If connected with the sewer system, make a solution of coppers, five pounds to a bucket of water, and pour a pint into the bowl twice a day, close up the place tight and burn in a metal basin one-half pound of stick sulphur. A less unpleasant but also less efficient way consists in placing an open half-pound can of chlorinated lime in the bathroom, stirring up the lime occasionally. If the bowl is not connected with the sewer system, take three ounces of corrosive sublimate for every 100 gallons of matter, dissolve it in two buckets of hot water and pour it into the bowl, aiming to rinse as much as possible the walls of the vault. Afterwards throw into the vault once a month five pounds of coppers, dry, if the vault is rather wet, or dissolved in hot water if the vault is dry. Fumigate the place as previously directed.

Yards—Rake up all garbage, mix it with combustible matter such as straw or paper, and burn. Sprinkle the yard with a mixture of salt and coppers, equal parts, one pound each to every 200 square feet.

Sinks—Keep them well scrubbed with soap or washing soda.

Second, to disinfect with a view of killing the germs of contagious or infectious diseases:

For disinfecting the dwelling follow the instructions above given, doubling the quantity of the disinfectant.

Excreta from the patient should be collected in a vessel containing a solution of corrosive sublimate, one-quarter ounce to the gallon, and left in this solution for a half hour before being emptied into the vault. All that can be burned should be burned.

All linen used in a sick room should be boiled in a solution of corrosive sublimate, twelve grains to one gallon of water, and then twice rinsed in clean water. All tableware which has entered the sick-room should be similarly treated.

As soon as possible close up the sick-room tight, leave in it all the dry goods of the patients or nurses that cannot be boiled or burned, and light two pounds of stick sulphur in a metal bowl. Keep the room closed for two days and then ventilate for a week.

Do not place any trust in carbolic acid or chlorinated lime, as in practical use they are too much diluted to be effective. Lime is a good disinfectant whilst it is slaking.

HE MISSED THE DATE TO IT.

Editor (having glanced at the contributor's joke)—Where's the other?

Contributor—Other? There isn't any other.

Editor—Oh, I thought that Noah took two of every kind into the ark.—Town Topics.

The world's yearly consumption of black pepper as a condiment is estimated at \$3,000,000.

ADVERTISING MISCELLANY.

An item which has been floating around for some time in the "funny" columns of the press, reads as follows: "A farmer at Stanberry, Mo., had enough simple faith in mankind to advertise in the local newspaper for the recovery of a ten-gallon keg of blackberry brandy, which he lost out of his wagon on the way home." The expression "simple faith in mankind" discloses the reason for the existence of this piece of humor, and the average reader at once puts human nature against simple faith, and comes to the conclusion that the man who advertises for such a commodity, under such circumstances is throwing his money away. This verdict will be found to be almost universal, but similar instances are not confined to farmers who have simple faith in mankind. There are apparently many business men following the same course. They have goods to sell and naturally expect that their advertising will have the desired result of aiding in such sales, but many of them are following after a certain manner the methods of the farmer. In the first place they are not advertising the right kind of goods, and in the second, they may word their advertisement in an unattractive manner, or in a way to actually repel trade, for we can imagine that perhaps a portion of the readers of the farmer's "ad" started out the next day with the idea of finding that keg of blackberry brandy, and appropriating it to its own use instead of restoring it to its rightful owner.

The advertising of the fact that a man keeps certain staple goods, or a complete stock of goods has no effect upon the buyer, as the latter knows that every merchant in the same line of business does the same thing, or at least pretends to. This sort of advertising may be illustrated by supposing that an announcement was made by a druggist that he furnished a cork in every bottle of medicine sold. This would have no effect upon his customers, as they are already aware of the fact, and they also know that all his competitors do the same. But if the announcement were made to read "corkscrews," attention would be attracted at once, as the act is somewhat unusual, and all druggists do not do such things.

The public now looks for bargains or special offers, and the man who desires to advertise himself or his staple goods must do it with something else. He must choose "leaders," and depend upon their drawing power to get people into his place of business. There are several successive steps in performing such a task which must be carefully observed. The first is the selection of an article which the public wants, and this must be either something new or a novelty, or it must be some staple article upon which prices may be so fixed as to attract attention. This latter method may be a reprehensible practice from the ethical standpoint of some, but unfortunately our commercial captives pay more attention to dollars than to ethics, their actions being usually beyond the control of even a majority, and we are only dealing with such matters as we find them. The second step is engaging the attention of the public. Two examples of advertising to accomplish this end are shown, which speak for themselves. Neither is entirely new, but it is an easy matter to settle their comparative ages.

**JOHN DOE,
DRUGGIST,
DEALER IN
Drugs, Medicines,
Toilet Articles, Perfumery, Etc.**

PRESCRIPTIONS CAREFULLY COMPOUNDED.

43 Easy St., - PILLVILLE.

The first is a rather languid announcement that John Doe is still on earth, doing the same kind of business that he did last year, and perhaps has some of the same old goods. If anyone happens to want any of his goods, or should happen to get sick, why, John is still there, and people can, if they feel like it, drop in and see him the next time they come to town. Richard Roe, on the contrary, invites people to come in right away, and strike while the iron is hot. That soap may all be gone if they don't hurry.

**BLANK'S
FAMOUS**

TOILET SOAP

**6 CENTS
PER CAKE.**

This is the usual 10-cent cake. I bought a big lot of it at big-lot prices. I knew it wouldn't go out of style. Its better to sell soap on small profits than to sit around complaining of the hard times.

Now is Your Chance.

RICHARD ROE,

Druggist,

10 Hustle Ave. PILLVILLE.

Everybody knows that he keeps the same kind of goods that his neighbor, Doe, does, and compounds just as carefully, but they didn't know he was selling that soap at 6 cents per cake. They will go for the soap, but at the same time they cannot help seeing his entire stock of goods, and quite likely when they leave home to get some of that soap, they will conclude that as they are going to Richard's place of business they might as well buy a tooth brush, as they are saving a few cents on soap and can thus afford it.

Judge—"Have you anything to say before sentence is passed?"

Prisoner—"No, your honor, except to call your attention to the fact that that fool lawyer what defended me was appointed by yourself."

The Orisena Co., 209 State street, Schenectady, N. Y., has been organized to manufacture toilet articles and specialties, with branch offices at Saratoga, N. Y., and Boston, Mass.

An international exhibition of wines and olive oils, with the machinery used in such industries, will be held at Milan, Italy, some time during the present year.

THE OIL-PRODUCING PLANTS OF FORMOSA.

The following particulars of the oil-producing plants found in Formosa are extracted from a special report on the resources and trade of that island prepared by Mr. Alex. Hsieh, late Acting British Consul at Tamsui, and published by the Foreign Office as Commercial No. 11 (1893), and reprinted from the *Phar. Jour.* and *Trans.*:

Oil-Producing Plants.—Since the introduction of kerosene oil into China, the demand for native lighting oils has been on the decline, but for cooking purposes some of these oils are produced in large quantities. Oil-yielding seeds are likewise exported, to a limited extent, to foreign countries, where the oil is extracted and used to adulterate more valuable oils.

Of the seventeen oil-producing plants cultivated in China, eight grow in Formosa. They are:

1. *Dolichos Soja*, L. (?)—More oil is extracted from this bean than from any one of the other oil-yielding plants of China. The two kinds of bean treated for oil are small in size and oval in shape, one having a whitish yellow epidermis and interior, the other being green throughout. They are probably sub-varieties of the soja bean. The process of extraction is worthy of description. The first thing that strikes the eye of a visitor to a bean-oil factory is the enormous stone wheel which is used to crush the beans. It is of dressed granite, about ten feet in diameter and two and a half feet thick at the axis, gradually contracting to a foot at the rim. This wheel, which is of enormous weight, revolves in a well thirty to thirty-six inches broad, paved with stone and bounded on each side by a low wall of concrete some three feet high. The massive wooden axle on which the wheel revolves has its opposite end firmly fixed in a huge beam, which rises vertically from the center of the circle formed by the inner wall of the well, and which revolves with the wheel. Behind the wheel and supported by a plank fixed on and near the opposite end of the axle, is a wooden framework which just sweeps the floor of the well. The front of the framework has a metal share like a plow, and affixed to the rear is a small square of wood inclined to the inner wall of the well, with a loop of rope or leather nailed to it. The beans to be crushed are heaped in the well against the inner wall. Two mules, blindfolded, are harnessed to the wheel, one in front, the other behind, and walk outside the outer wall. At the first revolution nothing is crushed, but the loop at the end of the framework drags the beans onto the floor of the well, and at the second revolution these are crushed and swept towards the outer wall by the share making way for a fresh supply of beans dragged on by the loop arrangement at each revolution. The beans are flattened into thin round wafers and are crushed a second time before they are ready for further manipulation. After the second crushing, bean wafers sufficient to make a cake four inches thick and two feet in diameter when compressed are put in a square piece of sacking, and placed on a wooden grating above a caudron of boiling water. In a few minutes they are rendered quite soft by the steam which passes up through the grating to the sacking and its contents. During the process of steaming another workman has been arranging a series of soft straw brooms, which are also steamed so as

to form the bottom of a couple of narrow metal bands, surmounted by a wooden ending, over which the tips of the straw brooms project. Into this the steamed beans are poured and trampled down by foot until the mass is quite hard. The projecting straw tips are then brought over the top of the beans by foot, and trampled down so as to form a covering. The wooden casing is removed, and the metal bands arranged a short distance apart near the top and bottom of the cake respectively. The whole is then put into a primitive wooden press, and subjected to considerable pressure by the driving in of successive wedges. The oil is expressed and drains into an underground tank, the top of which is on a level with the stone guttered slab on which the lowest cake rests, for half-a-dozen cakes, one above the other, may be undergoing pressure in the same press at the same time. When all the oil has exuded from the cakes they are taken from the press, the metal bands and straw casings are removed, and, after being left to dry for a time, they are ready to be shipped to other parts of China for manure. The beans yield about 10 per cent weight of oil and the cakes when removed from the press weigh some sixty-four pounds, and are worth about 2s 9d each. They constitute a very valuable manure, and are carefully macerated before being applied to the soil.

To show the commercial value of this industry, it may be mentioned that 60,000 tons of bean cakes were exported from Chefoo during 1890. Nor is Chefoo the principal exporter. Newchwang sent out over 156,000 tons in the same year. In Formosa these beans are grown and the oil is extracted in the above manner, but only in quantities sufficient to meet local requirements. The refuse cakes are not exported. The oil is used for both cooking and lighting purposes.

2. *Brassica Chinesis*, L.—Rape is usually a winter crop in China. Towards the end of October the seeds are planted about a foot apart in beds; in March the plants are in full flower, and in early June the crop of seeds is harvested. This refers to Mid-China, where the temperature is mild and the frost is not so severe as to retard sowing till after winter. It is more widely cultivated in China than any of the other oil-yielding plants. The seeds are treated much in the same way as beans, being crushed, steamed and subjected to pressure. Like the preceding, rape-oil is used for lighting as well as for cooking.

3. *Sesamum Indicum et orientale*, D. C.—Both the white and black-seeded varieties of sesame are cultivated in China, and from Formosa there is a very considerable export of seeds which find their way to France, where sesame is largely used to adulterate olive-oil. It is a summer crop. The seed is sown in May, usually in rows with other crops, such as cotton on the mainland; the plant blossoms in July, and the harvest takes place in September and October. Sesame is essentially a food oil. Refuse seed-cake is much used in Formosa for adulterating opium.

4. *Arachis hypogaea*, L.—The groundnut, a native of Africa, is extensively cultivated in China, not only for the food which the nuts supply, but also for the oil which they contain. Although the Chinese have not yet discovered a good practical method of removing the shells before pressing, yet the oil, necessarily impure on that account, is highly appre-

ciated as a food, as well as a lamp-oil. To obtain the oil, the nuts are roasted, rolled, winnowed to get rid of the shells—steamed and pressed. The plant prefers a sandy soil, such as is found in the neighborhood of Chefoo, but it appears to be equally at home in Western China and in Formosa. These nuts will be found on every roadside stall in China.

5. *Stillingia Schifera*, S. and N.—From the seeds of the vegetable tallow tree, both tallow and oil are produced. They are used for lighting purposes only, and as the method of extraction is ingenious, a short description thereof may be of some interest. When the fruit is ripe, the dark-brown protecting covering which encircles each seed opens and falls to the ground, leaving exposed bunches of grayish-white berries, which resemble coffee-beans in appearance and size. These are collected by hand, steamed, and thereafter pounded in an ordinary rice trough. By pounding, the soft mealy mesocarp is partially separated from the kernels. The whole is then placed in a bamboo sieve, the meshes of which are just large enough to allow the mealy matter to be scrubbed through, and small enough to keep back the kernels, which are hard, black, and about the size of peas. From the mealy substance the tallow is expressed in primitive wooden presses. The oil is derived from the kernels in the following manner: They are dried in the sun and passed between two mill-stones held at such a distance apart, by means of a bamboo pivot, as to crush the hard shells of the kernels without injuring the white interiors. The whole is then passed through a winnower, which separates the broken shells from the solid matter. The latter is thereafter placed in a deep iron pan over a fire, the crushed oily shells making an excellent fuel, and roasted until it begins to assume a brownish color, the process being accompanied by continual stirring to prevent burning. It is then crushed by a huge stone roller in a circular stone well, steamed, made into cakes like cheeses, with bamboo and straw casings, and passed through the wooden press. The resultant is a good lighting oil of a brownish-yellow color.

I have previously alluded to the remarkably ruddy tint which the foliage of this tree assumes in autumn, a tint which lights up the landscape wherever the tree grows, and forces its beauty on the beholder. Although it grows wild and uncared for in North Formosa, no use whatever is, so far as I can ascertain, made of its fruit. There, too, the berries appeared to me to be inferior and much smaller than those produced by the cultivated and well tended trees on the mainland. But the secret no doubt is that, whereas in Formosa the tree is utterly neglected, in the great centers of tallow and oil manufacture in China it is grafted, and consequently yields superior fruit.

6. *Camellia Thea*, Link.—In all the tree-growing districts throughout China, the seeds of the tea plant not required for raising new bushes are collected and treated for their oil, which is employed for both food and lighting.

7. *Cinnamomum Camphora*, N. and E.—Although the camphor laurel is found in many of the provinces of China, where it is highly valued on account of its wood, yet Formosa is the only province in which camphor is manufactured. I shall have occasion to deal hereafter with this industry and need only mention in this

place that when the camphor is being distilled from the chips of camphor-wood an essential oil exudes and drops into the boiling water underneath. This, as well as the liquid which exudes from the camphor when awaiting shipment, is collected and exported under the name of camphor oil. It is used for chemical purposes.

8. *Ricinus* sp.—The castor oil plant grows wild throughout Formosa; but in the north of the island, oil is not extracted from the seed, nor is any use whatever made of the plant. In the south a little oil is extracted for purely local uses, but no attempt is made to cultivate the plant. This species, which has green stems and leaves, does not attain the height of *Ricinus communis*, which is distinguished by its purple stems, branches and leaves. The latter, grown from imported seed, may be seen as an ornamental shrub in gardens near Tamsui.

I have not included *Diospyros Kaki*, L. f., which grows in Formosa as well as on the mainland, among oil-producing plants, for the juice of its fruit should be classed as varnish and not as oil.

SCIENCE IN PRISON.

While Siemens was stationed, in 1840, at Wittenberg, he became interested in the discovery, then recently made by Jacobi, of the precipitation of metallic copper from the sulphate by means of the galvanic current. He repeated the experiments successfully, and applied the process—so far as his means would permit—to other metals. His studies were interrupted by his arrest and imprisonment for connection as second with a duel between two of his brother officers. Not relishing the idea of spending an indefinite period in idleness, he managed on his way to the citadel to make arrangements to have the materials required in his electroplating researches smuggled in to him. He set up a small laboratory in his cell and made himself contented there. Recollecting, from experiments he had made in the Daguerean process, that hyposulphite of soda would dissolve the insoluble salts of gold and silver, he applied the principle to electrolysis with astonishing success; and he believes, he says, that it was one of the greatest joys of his life when a newly silvered teaspoon which he had immersed at the zinc pole of a Daniell cell into a cup filled with a hyposulphite gold solution, while the copper pole was connected with a *louis d'or* as an anode, "was converted in a few minutes into a gilded spoon of the most beautiful, purest golden luster." Galvano-plating was then new in Germany, and his discovery made much talk. A jeweler of Magdeburg visiting him in prison to examine into its merits, he sold him the right to use it for forty louis, and thus obtained means for continuing his experiments. He counted upon enjoying still several months of captivity, and the unmolested prosecution of his researches, when the unwelcome message came to him of a royal pardon, and he was obliged to leave the citadel at once, without house or other spot in which to set up his apparatus. He asked leave from the commandant to stay a little longer, but was denied, accused of being ungrateful for the royal clemency, and was hurried out of his quarters at midnight.—*Pop. Sci. Monthly.*

The Shepherd's Sarsaparilla Co., Skowhegan, Me., has been organized with a capital stock of \$10,000.

TRADE NOTES.

EASTER DYES.

These may be obtained of the following firms, all of whom have advertisements in this issue:

O. A. OHL, Tiffin, Ohio.
PAAS DYE CO., Newark, N. J.
J. J. FLECK, Tiffin, O.

J. L. Hopkins & Co. will move May 1 to 16 Platt street, New York City.

The Glidden & Joy Varnish Co., Cleveland, O., has changed its name, and is now known as the Glidden Varnish Co.

Katz & Cauffmann, dealers in drug sundries, Rochester, N. Y., have been succeeded by Oscar J. Katz.

L. A. Clark Co., inc. 371 Main street, Bridgeport, Conn., manufactures Rio Specific Tablets, and a line of toilet articles for the drug trade.

Irwin, Kirkland & Co., Decatur, Ill., make everything in "non-secrets," from Corn Killers to Hair Growers; nice packages, reliable quality and low prices.

The Redlich Mfg. Co., 377 N. Clark street, Chicago, in addition to their line of faucets, bungs, labels and corks and general bottles' supplies, are proprietors of D'Estrier's Cream Food for babies and convalescents.

Attention is directed to the advertisement of the new and revised edition of the National Dispensary which appears in this issue. This edition is now ready and the book is a magnificent imperial octavo volume of 1910 pages with 320 engravings. Price \$7.25 cloth, \$8 leather.

Foote & Jenks note an evidence of returning prosperity in an increase of mail orders recently received, especially from wholesale druggists. Business through their salesmen is also improving. The "Eastern Star" occupies a prominent place on most of the orders.

The Wilson Ear Drum Co. are manufacturers of a new invention called Wilson's Common Sense Ear Drums which are claimed to relieve deafness and other defects in hearing. The drug trade is invited to investigate this appliance with a view of supplying the public. Write for pamphlet.

In the last issue of our Druggists' Directory we classified the Sagar Drug Co., Duluth, Minn., as wholesale and retail druggists. This, they inform us, is an error. They are an exclusive jobbing house, and have no intention to retail, nor have they any facilities for carrying on that branch of the drug business.

Have you ever figured upon the question of buying your Refined Tar and Oil of Tar, direct from the producer and estimating the amount of money that can be saved by so doing? Correspondence with Hansen & Smith, Wilmington, N. C., will bring you some facts and figures upon these points.

The partnership heretofore existing between Benjamin D. Miner and Henry H. Elbreg, manufacturers of physicians' chairs, at Indianapolis, Ind., has been dissolved and the business will hereafter be continued under the same firm name by Benjamin D. Miner.

What Charles Allen Reed has to say about his Calisaya La Filla in his advertisement in this issue is quite interesting to the drug trade. Mr. Reed is quite willing to supplement his arguments with prices, which he will be pleased to send upon application.

If you are thinking of buying a tablet machine, you should not fail to investigate the "Keystone" machines, manufactured by A. Leggoe & Co., Philadelphia, Pa. They have a capacity of from 75 to 100 tablets per minute, and are made in different sizes for both hand and power. Send for circular and price list.

The Folding Paper Box Co., of South Bend, Ind., are quoting prices on carton and paper box work which are low enough to call for investigation on the part of the drug trade. They are increasing their plant and trade, and are always pleased to submit samples of their goods and name prices on anything in their line.

A saving of one thousand per cent is just ten times better than the Dutchman's famous one per cent. The former is what the druggist can save by using the simple apparatus manufactured by the American Triturate Mold Co., 1130 South Twelfth street, Philadelphia. See their prices, and figure it out yourself, and then make your own tablet triturations.

The seventeenth edition of the United States Dispensary is now ready for delivery. It has been thoroughly revised upon the basis of the new U. S. P., 1890. The new book contains 1,950 pages, but the price remains the same as for previous editions, cloth \$7, sheep \$8. Address the J. B. Lippincott Co., 715-717 Market street, Philadelphia, for full particulars.

The New Peck Cash Register advertised in this issue of the Era is recommended as being especially suitable for the prescription department. The price is \$25, and an investigation of the merits of the register will be quite convincing as to the benefit to be gained from such an investment. Write for detailed description.

Billings, Clapp & Co., manufacturing chemists of Boston, say that their specialty, Iodide of Lime (Nichols'), is meeting with an unprecedented sale this winter, and they express the hope that every pharmacist who has a call for Iodide of Lime, will remember that this is a special preparation, entirely distinct from Iodide of Calcium, and will secure it in original packages through the wholesalers.

BETTER THAN REPRESENTED.

Mr. J. H. Janes, a prominent horseman at Windsor, Mo., writes under date of January 28 as follows: "Having used two bottles of Quinn's Ointment, I herein inclose \$1.50 for another bottle. I have found it to be as represented and even more." This is the universal expression of the leading horsemen from Maine to California. For curbs, splints, spavins, windpuffs and all banches Quinn's Ointment has no equal. It will pay to carry it in stock, and if you desire advertising or will send the names of ten or twelve of your customers who are in the horse-breeding line, to Messrs. W. B. Eddy & Co., Whitehall, N. Y., they will forward them, without charge, trial packages.

French, Cave & Co., of Philadelphia, present an object lesson in their advertisement in this issue, which shows how the druggists' customers may act, and explains the reason therefor. Every druggist who will send them his label or business card will have labels and wrappers sent to him, showing how French's Sarsaparilla is put up.

The Sedlitz Powders put up by the Doane sedlitz powder machine have always been noted for their accurate weight, and the reputation of the manufacturer is a guarantee of the purity of the chemicals used. Prices and samples of these powders will be furnished upon application. Address Chas. R. Doane, 22 Meserole street, Brooklyn, N. Y.

Every manufacturer of pharmaceutical specialties or apparatus who desires to introduce his goods in England should correspond with Rankin & Co., 7 Snow Hill, London, E. C., whose advertisement appears in this issue. They make a specialty of such business, furnish English and American references, and guarantee accounts.

In spite of the alleged hard times Chas. P. Whittle, manufacturer of druggists' furniture, Boston, Mass., has had work enough to keep his force busy. Among his recent productions are a lot of table tritrate cases in oak for the E. L. Patch Co., Stoneham, Mass. Both the manufacturer and the present owners have reason to be proud of these cases, and druggists who desire anything in this line should write Mr. Whittle for prices and designs.

Henry C. Blair, Walnut and Eighth streets, Philadelphia, calls the attention of the trade to his Eureka Shield for vaccinated arms, which needs but to be seen to be appreciated. It affords protection against all chafing from clothing and chance blows. It is securely held in place over the vaccinated part by tapes passing around the arm, fastening to the undergarments. Write for prices and detailed information.

A preparation which will exterminate bedbugs, roaches, and other insects, and at the same time is non-poisonous to human kind, is one which the drug trade can handle with advantage and profit. Such a preparation is supplied by the Iron City Chemical Co., Pittsburg, Pa., under the trade-marked name "Bugine." They furnish plenty of advertising. See list of jobbers who handle it in this issue.

The advertising matter furnished by Mrs. Gervase Graham, 1355 Michigan avenue, Chicago, will be of considerable interest to the lady customers of the retail druggist. Cucumber and Elder Flower Cream has proven to be a good seller wherever attention has been called to it in this manner. Remember that Mrs. Graham pays transportation charges upon the smallest order.

The season will soon be at hand when a sheet of sticky paper with files upon it will be a familiar and satisfactory spectacle. It will be satisfactory if the right kind of paper is used, otherwise it will not be. If the druggist desires to handle a paper which has a popular name, and is besides true to the name, he will not forget to specify "Tanglefoot" when ordering.

The Philadelphia Ornamental Wire Co., 18 N. Sixth street, Philadelphia, make wire display stands for the drug and perfumery trade, and they also make their ware from original and artistic designs. Their catalogue proves this, and everyone interested in such goods should send for a copy of it. It can also be obtained from their western representative, J. W. Dickerson, 72 Wabash avenue, Chicago.

Atwater, Armstrong & Clark, of Rochester, N. Y., who are extensive manufacturers of wood packing boxes for patent medicines, wines, liquors and mineral waters, have recently added improved machinery to their plant, and are now in a position to supply any quantity (lettered) upon short notice. Their capacity is 10,000 patent locked corner boxes per day. A postal card to the above firm will bring you quotations upon any quantity desired.

Are you receiving the prices current of the Morley Drug Co., 57-59 Franklin street, Chicago? They handle a full line of chemicals, and are agents for the Connecticut Witch Hazel Co., Gilpin, Langdon & Co., Orlole Tablet Machine, etc., and will be pleased to furnish complete price lists with quotations for large and definite orders for immediate or future delivery.

Wm. R. Warner & Co., manufacturing chemists, Philadelphia, offer a handsome case in either walnut, antique oak or cherry finish, free with orders for their pills, granules, effervescent salts or paroules amounting to \$50 net. These cases present a very handsome appearance and are an ornament for any drug store. Write for illustration of this case and other information regarding the offer.

Saratoga Victoria Spring Water is popular both as a table water and as a medicinal agent. It is a healthy, refreshing beverage, and has a decided curative effect upon indigestion, dyspepsia and diseases of the kidneys. It is sold in bottles only in cases containing 100 pints, or 50 quarts, allowance being made for empty bottles returned. Write for discounts to the trade, which allows the dealer a very liberal profit for handling.

Business is improving. There is no mistake about it. This is what Frederick F. Ingram & Co., of Detroit, Mich., say, and they base their statement upon the fact that they have been compelled to work nights to fill their orders. The retail drug trade evidently believes in being prepared for the spring trade by having on hand a reliable line of non-patents. The popularity of Wing's perfumes is also evidently on the increase.

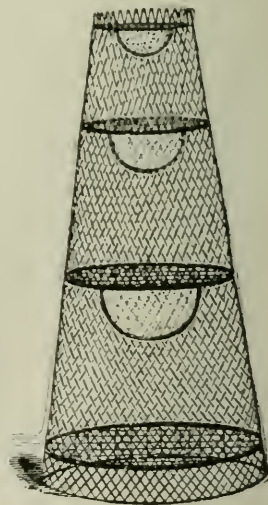
THE PLACE TO DINE IN NEW YORK CITY.

Business men visiting New York City are beginning to find out that one of the cosiest places to get a good dinner, with everything of the best, is the old restaurant, formerly Heckman's, now called the "Century," at No. 122 William street, in the center of the drug district, which has changed hands and is now run in first-class style by one of the best caterers in the city. There has been a restaurant in this building (the oldest in the city) as far back as the memory of the oldest inhabitant can run. Many of the leading business men, who are particular regarding their meals, may be seen regularly at this old hostelry.

As all the prominent wholesalers handle Theodore Metcalf Co.'s sachet powders it is a comparatively easy matter to include a trial lot in your next order for general merchandise. These goods are already favorably known to the public, and this firm's trade-marked sachets, "Forget-me-not," "Drop of Dew" and "Boston Orris" are especial favorites with a large circle of the lovers of fine perfumes. Write for price list.

Send to E. P. Hall, Erie, Pa., for order blank for 500 rulers free, with your advertisement on both sides. Also ask for a blank sheet for twenty-five names. The sending of these names will result in your friends and customers receiving free a 5-cent sample of Hall's Erie Catarrh Remedy, which retails for 50 cents per bottle and they will be referred to your store for further supplies. Retailers make a good profit on this remedy.

Interest the doctors, and you can boom your prescription trade. J. M. Groavener & Co., 105 Milk street, Boston, tell in a very clear manner in an advertisement in this issue just how it can be done. Send for samples of Konaels, an improved method of administering powdered drugs, taking the place of capsules, cachets and wafers. Unique advertising matter is also furnished which never fails to call the attention of the physician to this new invention.



SPONGE BASKETS.

The above illustration shows an article which should have a place in every drug store. It is sold at a reasonable price, \$4 50, and is but a sample of the many articles of this kind made by the Cincinnati Mfg. Co., Cincinnati, O. This company is out with a new supplementary spring catalogue of brushes and wire goods which they will be glad to send to druggists upon application. They are making special efforts for the drug trade and their catalogue not only shows a wide range of articles particularly suited to the drug trade, but the prices are such as will command attention.

In fitting up a store durability as well as beauty should be considered. The Kinnear & Gager Co., of Columbus, O., manufacture steel ceilings which combine both of these features. Any druggist who contemplates making a change in the interior arrangement of his pharmacy should obtain catalogues and prices from this firm and figure upon the utility and economy of their product.

The Akron-Canton Stoneware Agency, 226 Lake street, Chicago, are manufacturing a Bristol-ware white, glazed jug, which does not leak, is uniform in size, corkhole, and capacity. The price is \$1 per dozen for gallon size, 85 cents for half-gallons, f. o. b., Chicago. For strong chemicals and high grade liquors these jugs are claimed to be superior to anything on the market. Trial orders are solicited.

Symphorol is the name of a new diuretic lately introduced by Farbwerke vorm. Meister Lucius & Bruning, Hoechst a. Main, Germany. It is the trade name for Caffeine-sulphonic acid, which is exhibited in combination with sodium, lithium, and strontium. Full information regarding the therapeutics of these new combinations can be obtained by addressing Schulze-Berge & Koehl, sole agents for the United States, 79 Murray street, New York.

When your customers start upon their annual pilgrimage next summer for the mountains or seaside, tell them that you can fill their favorite prescriptions for them just the same as if they were at home. But you will have to make some preparation if you intend to do this. You will need mailing cases, and the proper thing to do is to send right away for price lists and circulars of the United States Mailing Case Co., 40 Water street, Boston, Mass.

Schulze-Berge & Koehl, New York, sole agents for Benzosol, announce that owing to the increasing employment of this compound as a remedy in phthisis the manufacturers have decided to reduce the price of the drug so that it will be within the reach of those of limited means. After March 1, 1894, the prices will be as follows: In 25-ounce lots, \$1 per ounce; in 10-ounce lots, \$1.05 per ounce; in less than 10-ounce lots, \$1.15 per ounce.

Hinds Honey and Almond Cream owes much of its popularity to the skill exercised in compounding the preparation. It is a perfect emulsion and has none of the oily characteristics which distinguish so many similar compounds. The manufacturer, A. S. Hinds, Portland, Me., introduces the preparation by sampling, so the public can judge of its merits before purchasing. He has a special offer in this connection, which will be to the advantage of the trade to investigate.

WORLDS FAIR PICTURES.

Later parts of the Michigan Central's World's Fair Portfolio fully justify the claim made upon the publication of the first number, that it was the best, the finest and the most artistic of popular publications on the White City.

Each part contains sixteen (16) large plates and is sold for only ten cents. If you haven't seen it, the nearest Michigan Central ticket agent will show it to you, or you can write to O. W. Ruggles, G. P. and T. Agent, Chicago.

If you are not an expert in determining the purity of white lead your only safe course in purchasing such goods is to buy from a firm whose reputation is established for furnishing a pure article. It is hardly possible that the Eagle White Lead Co. could have carried on a successful business for fifty years without having quality in their goods to sell them. There is a good deal in this point and it should be remembered when the time comes for buying such stock.

Have you noticed the latest offer of Geo. W. Holloway, 807 N. Sallina street, Syracuse, N. Y.? He now offers to send, upon receipt of \$2, freight prepaid, 1 dozen Holloway's Herb Tea, and 1 dozen Dr. Stone's "Ulmiset," the great cough remedy. These articles retail for 25 cents, so that an investment of \$2 brings a return of \$6. As to selling these preparations, he sends 250 samples of the tea, the distribution of which always creates a paying demand for the goods.

Every druggist who has a soda fountain is now looking for soda syrups. Here is a formula which is recommended by Duroy & Haines, of Sandusky, O. Take Duroy Port Wine, 2 pints; acid tartaric, 2 ounces; syrup simplex, 6 pints and tinct. cudbear or caramel sufficient to color. Fill the glass one-fourth full of the above syrup; then draw it full of soda water, and you will have one of the finest drinks known. Order a 6-gallon keg of Duroy Port and try it.

The Erie Chemical Company has been organized at Erie, Pa., with a capital stock of \$50,000 for the manufacture of chemicals from alkali products. The Le Blanc process will be used, and James G. Mackenzie, who has been identified with similar industries at Bristol, England, will superintend the manufacturing department of the new firm. Soda ash and bleaching powder will engage the attention of the company at first, but it is the intention in time to extend the business to include other allied products.

Do you put up any preparation or manufacture any of the official preparations which call for licorice mass? If you do MacAndrews & Forbes, 55 Water street, New York, can interest you. Their pure licorice mass is manufactured from roots gathered in the Orient, which are claimed to be richer in glycerhizin than those of any other country, and their product has given universal satisfaction wherever used. Write for quotations on one of their original trade-marked packages, and see if they cannot save you some money.

The J. Hungerford Smith Co., of Rochester, N. Y., call attention to three important commodities to the drug trade in their advertisements in this issue. The goods are all seasonable. "Sure Catch" sticky fly paper for 1894 shows many improvements, and the patent Penny Holder is offered as the cheapest, and most practical device yet invented for handling sticky fly paper.

Another novelty is "True Fruit" Pepsin Chewing Gum, with patent alarm box. This latter feature is proving exceedingly popular with the trade.

Druggists who own soda fountains will also find something of interest in "True Fruit" fountain syrups, and the manufacturers ask for a trial order to convince of their superiority.

The fluid extracts manufactured by Irwin, Kirkland & Co., the well-known chemists of Decatur, Ill., are of elegant appearance and reliable quality. They are prepared from select drugs by their improved process, and are guaranteed the best in the market.

The W. J. M. Gordon Chemical Co., of Cincinnati, O., transferred their glycerin exhibit from the World's Fair at Chicago to the Mid-Winter Fair at San Francisco, where it is making a handsome display in Manufactures Building, Avenue E. Since the close of the Columbian Exposition this company attach to all their cans or other packages a facsimile of the official blue ribbon, showing that their brand received first honors at the hands of the committee on awards.

All the standard pharmaceuticals are manufactured by Menn & Stubenrauch, 83 John street, New York, and their catalogue will explain their position as to making fluid extracts to conform to pharmaceutical standards. They are also sole agents for Pepsinum Purum "Byk," and Dr. Auerbach's Peptonized Infant Food, which are both meeting with considerable commendation from the medical profession. Their discounts are liberal, and they solicit correspondence regarding prices, methods and products.

Foote & Jenks have decided to maintain the No. 608 style at the reduced price of \$1.50 per 8 oz. bottle, or \$3 per pint for all staple standard odors, such as White Rose, Crab-Apple Blossom, Jockey Club, etc. Their special and trade-marked perfumes in this style are \$1.75 per bottle or \$3.50 per pint for Linden Bloom, Eastern Star, Pythian Bouquet, Santa Maria, Violet and Black Pansy. Their Tonquin Musk and Extra Frangipanni are \$2.50 per 8 oz. bottle or \$5 per pint.

SOME SODA FOUNTAIN FIGURES.

A sixteen-page folder, exquisitely designed and printed in two colors, has been issued by J. W. Tufts, as an advertisement of his soda fountains, bottling apparatus, etc. It appears that this house sold 27,000 pieces of marble apparatus in the last thirty years, 1,250 going to foreign countries. Of late years the average annual sale has been 1,400. Here is a list of sales by states and countries, showing that the goods of Mr. Tufts' make are in demand everywhere: Alabama, 268; Arizona, 10; Arkansas, 285; California, 405; Colorado, 293; Connecticut, 469; Delaware, 39; District of Columbia, 236; Florida, 303; Georgia, 486; Idaho, 34; Illinois, 1,718; Indiana, 894; Indian Territory, 25; Iowa, 787; Kansas, 791; Kentucky, 492; Louisiana, 192; Maine, 373; Maryland, 495; Massachusetts, 3,536; Michigan, 1,070; Minnesota, 500; Mississippi, 237; Missouri, 837; Montana, 43; Nebraska, 460; Nevada, 10; New Hampshire, 367; New Jersey, 386; New Mexico, 22; New York, 2,704; North Carolina, 247; North and South Dakota, 238; Ohio, 1,585; Oklahoma, 3; Oregon, 77; Pennsylvania, 1,014; Rhode Island, 321; South Carolina, 178; Tennessee, 366; Texas, 857; Utah, 52; Vermont, 208; Virginia, 626; Washington, 68; West Virginia, 178; Wisconsin, 435; Wyoming, 23; Quebec, 56; New Brunswick, 58; Newfoundland, 2; Nova Scotia, 34; Ontario, 303; Prince Edward Island, 3; Manitoba, 10; British Columbia, 1; Mexico, 12; Central America, 21; West Indies, 3; Hawaiian Islands, 1; other foreign countries, 1,249; grand total, 27,023.

Among the novelties designed to attract people to the soda fountain are the Ideal Tumbler Holders, manufactured by the John C. Johnson Soda Apparatus Co., 224 N. 13th street, Philadelphia. Their elegant appearance renders them appropriate adjuncts for the finest soda fountain, while their practical utility makes them exceedingly useful to the dispenser of the great summer beverage. A sample will be mailed for \$1.35, the regular price per set of six being \$7.50. See advertisement in this issue.

A. Guckenheimer & Bros., distillers, Pittsburgh, Pa., are sending to druggists and physicians of the United States, a very neat embossed folder printed in gold and colors, containing the testimonial of the Board of Judges on Liquors of the Columbian Exposition. As the twenty samples of ten ages exhibited by this firm averaged 99.1-4 points out of a possible 100, Guckenheimer's Pure Rye is one which will interest members of the drug trade, who desire a superior article for dispensing purposes.

As the Fuller & Fuller Co., of Chicago, guarantee the quality, and put their name upon a cigar called the "Flor de Fuller," the retailer who orders a half thousand is reasonably sure of getting a satisfactory cigar, and is also quite sure that the offer of an Improved Imperial Sponge Holder, free with each order, does not detract from the quality of the goods, but is simply what the firm is willing to pay to get the retailer interested in this particular brand. It certainly pays to become interested in "Flor de Fuller."

A balance which dispenses with steel or agate-knife edges, with their necessary friction, certainly presents many advantages over the ordinary forms. The Springer Torsion Balance Co., 92 Reade street, New York, manufactures scales which are free from these disadvantages. They will be pleased to send, when requested, price list and copy of Franklin Institute's report upon their goods, also a description of their improved balance beam graduated to show metric, troy and avoirdupois weights.

Have you tried the Improved Tooth Powder Bottle No. 69, manufactured by John M. Maris & Co., Philadelphia? The only objection you can possibly have to this bottle, is that it is economical for the consumer, but this disadvantage (?) is more than compensated by the fact that the customer always comes back to you to have the bottle refilled, and does a good deal of advertising for you in showing other people how nicely it works. If you haven't seen this bottle send 10 cents for sample, which will be mailed you.

Notwithstanding the general depression of business throughout the country, The Bradley Mfg. Co., of New Haven, Conn., report that the demand for their product, The Bradley Ice Cream Cabinets, has begun earlier this season than usual, and that the prospects for largely increased sales are very bright. These cabinets are certainly a very fine thing, and are now recognized as a necessity in the ice cream soda business, while their Delivery Cabinets for family use are among the best known contrivances for the purpose on the market. Full information upon these seasonable specialties should be in the hands of every owner of a soda fountain. Write for description and prices and mention the ERA.

As Beach & Claridge, of Boston, pay particular attention to the wants of the soda water trade it is quite proper for the drug trade to pay attention to the fruit juices and other soda water specialties which this firm have upon the market. They have been successful for years past in pleasing many soda dispensers, and their success has not been built up on poor or inferior goods. Their catalogue and formula book is just what you want for the coming season. Send for it.

Raymond & Co., of Brooklyn, N. Y., advertise on page 7 to present you one-half dozen of their Pectoral Plasters. If you are alive enough to send them the names of one hundred heads of families. If you are thinking of sending in a list it will pay you to take a little pains with it, and put in the names of people you know to be good customers. Then the advertising matter which Raymond & Co. send to these people will sell the goods, and you will be in pocket one dollar and fifty cents.

The catalogue which the John Matthews Apparatus Co., First avenue and 26th and 27th streets, New York, are sending out this season is a very handsome volume printed upon fine plate paper, bound in muslin, with cover design printed in silver. It contains a fine half-tone portrait of the late John Matthews, who established the company in 1822, gives several views of the company's offices and factories in New York City, and shows a large number of illustrations of the different designs of apparatus for which the firm is justly famous.

The name of Dr. Henry A. Martin has always been prominently identified with the history of vaccination in America, and his particular product of vaccine virus has always enjoyed a favorable reputation with the medical profession. The business which he established and successfully conducted for nearly twenty years is still continued by his only surviving son, Dr. Francis C. Martin, Roxbury Station, Boston, Mass. The drug trade will find something of interest in his advertisement which appears in this issue, and will do well to investigate the liberal terms which he offers.

It is an easy matter to sell goods when they are of high quality, have an attractive name, and are put up in artistic style. The public has a natural preference for such goods. Duquette & Co., of Council Bluffs, Ia., are quite well aware of this fact, and the above are the reasons for the existence and success of their Pomona Fruit Juice Tablets. They have 24 flavors and pack their goods in square flint glass bottles holding four pounds net. The leading jobbers handle them, and the manufacturers will be pleased to send prices to the trade.

J. M. Grosvenor & Co., 106 Milk street, Boston, have succeeded, in a very gratifying manner, in getting the public interested in Bell-Cap-Sic Plasters and Kremlin Cream. They have done this by unique methods of advertising, and in offering goods which support every claim made in their advertising. This is the class of goods which druggists can sell, or rather can take in the money for them, as they come about as near selling themselves as any goods upon the market. If you haven't received a sample of Kremlin Cream send for one.

The druggist who realizes that his interest and that of his medical patrons depends upon the quality of the goods he keeps, knows that it does not pay to keep anything but the best. It is quite often the case that results are not satisfactory from the use of ordinary oil of sandalwood, and in such instances Dodge & Olcott, of New York, recommend a trial of their "D. & O." brand, which they guarantee will produce all the therapeutic effects which a pure oil of sandalwood can. Try an original 4-ounce bottle. All jobbers have it.

The reduction in price of that most popular book of soda water formulas and hints to dispensers, Saxe's New Guide, is keeping the publishers quite busy filling orders and it is expected that the rush will continue for the next ninety days. The reduction from \$5 to \$3 places the book within the reach of all druggists who dispense soda water. Parties intending to buy should not delay sending in their order, for by purchasing now they will have time to digest the good points in the book, and when the soda season opens will be prepared to increase their trade over any previous season.

The public is perfectly willing to buy at a reasonable price anything which will add to the effectiveness of interior house decoration. People are interested in such matters and the tendency of the times is unmistakably in that direction. The drug trade will therefore do well to investigate the merits of "Gypsaïne," manufactured by the Diamond Wall Finish Co., Grand Rapids, Mich. This product is adapted for both plain and relief decorating and coat after coat of it can be applied indefinitely. Send for tint cards and copy of the Gypsaïne Advocate.

The advertisement of J. J. Fleck, Tiffin, O., which appeared in the issue of February 15, was certainly of a character to excite interest in the German Easter Egg Dyes manufactured by him. Through an unfortunate omission on the part of the ERA the offer was not made strong enough. Mr. Fleck not only sends a sample of his dyes free, but he also sends a price list and descriptive circular of several outlines showing how the retailer can procure 50 five-cent packages of the dyes retailing for \$2.50, free of charge. Let him have your name on a postal card.

Morrison, Plummer & Co., wholesale druggists, Chicago, believe in fair play. They are decidedly against the policy of pricing one thing at cost, and making up the deficiency on something else. Such a course necessarily confuses the buyer as to the general market value of goods, and is an encouragement to him to make retail prices which the true market prices will not enable him to maintain. This situation is quite apparent when it comes to making quotations upon goods of the season, and they invite correspondence regarding articles for the spring trade, with the assurance that prices quoted will be based upon quality.

MAP OF THE UNITED STATES.

A large, handsome map of the United States, mounted, and suitable for office or home use, is issued by the Burlington Route. Copies will be mailed to any address, on receipt of fifteen cents in postage, by P. S. Eustis, Gen'l Pass. Agent, C. & Q. R. R., Chicago, Ill.

Charles Gordon Buck, Chicago, calls the attention of the trade to his latest product, Arnica Mutton Suet. The curative properties of mutton suet have long been known, but the presence of extraneous irritating matter has been an obstacle in the way of its extended use. Mr. Buck's process of purification and combination with carbolic acid and arnica make his preparation one which quickly attracts the attention of the medical profession, and all those who work in the sick room. As a family salve it is meeting with great success. For prices and terms see "ad" in this issue.

One Graves Brush Rack, costing \$9 or \$10 according to size, will take care of all the brushes you will sell during your lifetime, and your heirs or successors will find it a valuable asset when you go out of business. It keeps brushes in such a manner as to prevent marring of backs, and breaking of bristles, and pays for itself in a short time. Ten dozen brushes can be displayed by it in a counter space of 19x22 inches, and customers can examine the goods with ease and satisfaction. Write to the Graves Brush Rack Co., Rome, N. Y., if further particulars are desired.

Nearly every druggist is prepared to admit the practical utility which attends the use of empty elastic capsules for fluids when the question of extemporaneous dispensing of such medicines comes up. The members of the medical profession are also right in line on the question from their own particular standpoint. The Merz Capsule Co., of Detroit, not only advocate the same ideas, but they also treat the question from a financial standpoint. Their figures are quite convincing upon this latter point, their claims for the saving of a certain percentage being founded upon some very straight figuring, which they will gladly furnish upon application.

The company which prepares Dr. W. R. Amick's chemical treatment for pulmonary diseases has established a New York depository at 114 Fifth avenue. This move is necessitated by the constantly increasing demand upon the Cincinnati laboratory made by the physicians in New York and vicinity. The depository is simply a supply bureau for the profession, obviating the inconvenience and expenditure of time incidental to procuring the preparations from Cincinnati. The offer to all physicians of sufficient remedies to give a fair trial in each case, without charge will be continued, and test packages may be obtained from the New York depository.

The man who is disposed to spend any money at all for a tumbler washer should make it a point to get the best to be had. Convenience should be regarded as a commodity to be duly paid for. With this idea in mind the New Automatic Tumbler Washer manufactured by L. L. Rowe, 16 Howard street, Boston, will be regarded as a paying investment. These washers are provided with a brush attachment of such form as to insure contact with every part of the inside of a soda or mineral water glass. This removes all cream which is then carried away by forcible jets of water, which also thoroughly rinse the glass. Write for prices on these conveniences.

Chicago, Ill., Feb. 14, 1894.

H. D. Cushman, Three Rivers, Mich.:

Dear Sir—In sending my order for a half dozen more inhalers I am pleased to say, that, with the use of one inhaler my son has been cured of catarrh, of which he has been troubled since infancy. I have used atomizers and consulted first-class physicians, also have taken him to Colorado, but nothing would relieve him until I began using your inhaler, which he has used continuously until cured. It has saved me many dollars, and I recommend the same not only for its goodness, but also for its cheapness.

Respectfully yours,
JULIAN BROMILLET.
17 Selden st., Chicago, Ill.

The Wm. S. Merrell Chemical Co. are entitled to the credit of introducing to the medical profession and drug trade, the perfected form of fluid medicines sold by them as Green Drug Fluid Extracts. These preparations are distinctive, not only as to physical appearance, but in respect to their permanency and therapeutic value. They contain a minimum per cent of the inert and non-medicinal constituents of the drug from which they are prepared, and are claimed to represent the active medicinal principles to a greater degree than any other competing line of fluid medicines. In accuracy of dosage, and in cleanliness, and in dispensing economy, they commend themselves to the judgment of practitioner and dispenser alike.

Shoddy goods are made by shoddy houses. The best test of the quality of any goods placed on the market is the business standing of the manufacturer. If the house is responsible, it is fair to presume that the goods are what they are represented to be. A case in point is that of Clarke's Pure Rye Whiskey. The mere fact that it is distributed by Messrs. Colburn, Birks & Co., of Peoria, Ill., is sufficient guarantee that the whiskey is all that is claimed for it. This firm, who have been in business for thirty-one years, could not afford to attach their name to an inferior quality of goods, and that they have been successful in pushing this brand of whiskey is attested by the increasing number of orders their house is receiving daily. Clarke's Pure Rye is certainly the peer of any whiskey made in this country.

The receipt on February 14 of a square packet wrapped and sealed with a red ribbon device, and bearing the inscription "To be delivered into ye hand of D. O. Haynes & Co., in ye faire Citie of Detroit, these greetings," naturally awakened a suspicion that a pictorial representation of some of the foibles or weaknesses of editors and publishers was at hand. An agreeable disappointment was found in the following:

To you, greeting on this
Saint Valentine, his day.
Oh, ye! of mortar and of pestle,
Who many a time and oft do wrestle
With hasty scrawls of those M. D.'s,
Who do not 't is and cross not 't';
If you've invented for each Ill
Something prepared with care and skill,
And long to win—as Valentine—
Fortune, that fickle maid divine,
Come hither straight! My aid you'll prize—
To win her you must Advertise!

At ye figure of A. L. Hummel, M. D.,
Medical Journal Advertising, 257 South
Fourth street, Philadelphia, Pa.

It is said that a man is known by the company he keeps, and the saying is undoubtedly true, but a druggist is only favorably known by the goods he keeps. If he desires to keep in line with the opinions of the judges at the Centennial, Paris and Columbian Expositions, and of the general public as well he will always be careful to specify "M. & R." when he orders his licorice. Mellor & Rittenhouse do two things in the manufacture of their specialty. They put their goods up in an attractive manner, and in convenient packages for handling and ordering, which pleases the drug trade. Then they put quality into their goods, which pleases the public. M. & R. licorice is the kind to handle for all-round satisfaction.

A comparative study of the soda water business of the present, and that of but a few years ago shows an improvement which would astonish the prophets of two decades ago. In considering the present stage of development there are many features which may be classed as strictly new, and the Ash Soda Fountain Co., 207 S. Canal street, Chicago, have something in this line to which they call the attention of the trade. Their apparatus with removable horizontal or upright syring jars, with recess, embody certain advances in construction which should be studied by all owners of apparatus. Their prices and terms both in sale and exchange are extremely reasonable, and prospective buyers should have their catalogue and price list before buying.

Ordinarily a sieve is a sieve, but no druggist ever used one without feeling that he would use something better if he knew where to get it. It is this demand for something better, even in commonplace utensils, which has caused Withall, Tateum & Co., manufacturers of glassware and druggists' sundries, Philadelphia, to attempt something better in sieves. They believed that the same material, and the same number of hours of labor could produce an improvement in this article without an appreciable increase in cost. They have accomplished such a result, and are now offering brass wire sieves with lacquered tin frames at nearly the same prices which are charged for the ordinary wooden frame sieves. They describe these goods in an advertisement in this issue and also call attention to some other articles in which the idea of improvement is strikingly illustrated.

The Connecticut Witch Hazel Co., 132 Nassau street, New York, make the following quotations on their special product, "Hazel Bloom," f. o. b. Chester, Conn., New York City, Albany, N. Y., or Chicago, Ill.: Barrels, 55 cents per gallon; half-barrels, 58 cents per gallon. Bottled goods per gross as follows: 4 ounce, \$10; 6 ounce, \$12; 8 ounce, \$13; 12 ounce, \$14 50; 14 ounce, \$17 50; pints, \$19 50; quarts, \$30. The bottled goods are put up in original packages as follows: 4, 6, 8 ounces 1 gross lots; 12, 14, 16 ounces in half-gross lots, and quarts in one-fourth gross lots. No charge is made for containers and the bottled product is furnished complete with label and wrapper. See list of selling agencies on another page to whom orders should be sent and prompt attention will be given to shipment. Special prices will be quoted on carload lots, and full discounts given to jobbing and wholesale trade.

EASTER.

The celebration of Easter is as old as Christianity. It takes its name from Oster, rising, or as has been claimed, from the Saxon deity Eostre, whose festival is observed at the vernal equinox. The time of its celebration varied in the early churches, those in Asia Minor keeping Easter on the day of the Jews' Passover, the middle of the Jewish spring month Nisan, while the rest of the small Christian world celebrated the resurrection on the Sunday following the festival of the Passover. The bishops of the ancient churches, including the venerable and immortal Polycarp, sought in vain to adjust these differences, and the Paschal controversy, as it was called, lasted for several centuries, until the Emperor Constantine had a canon passed in the Council of Nice, A. D. 325, providing for the celebration of Easter "everywhere on one and the same day," according to the rule still given in a condensed form in the prayer book, "Easter Day is always the first Sunday after the full moon, which happens upon or next after the twenty-first day of March, and if the full moon happens upon a Sunday, Easter Day is the Sunday following."

The earliest Easter custom recorded was the universal salutation of the primitive Christians on Easter morning, "Christ is risen," to which was answered, "Christ is risen indeed." The idea that the sun dances upon Easter morning comes down from this early period. Distributions to the poor, of food and clothing, were among the Easter celebrations of the early church. Very ancient is the unaccountable custom of the clergy and laity together tossing balls in the churches at Eastertide, for tansy cakes, the later mingling of bitter and sweet symbolizing the great fast and festival days of the church, Good Friday and Easter.

After the twelfth century outdoor games seem to be special features of the occasion. Football was one of these, the city mayors, wardens and other officials, in full insignia of office, marching in procession to the scene and taking an active part in the amusement. In the time of Henry VIII. this was superseded in England by foot races, the former pageantry replaced by a procession of horsemen, each carrying a spear adorned with a wooden ball and garlanded with flowers.

Archery was another favorite Easter pastime, the sheriffs of contiguous towns choosing sides from among the yeomen "to the number of twelve score," when followed the shooting for the championship, and a "breakfast of calveshead and bacon." The contest over, they marched in procession to the town hall to share the breakfast, the winners, as hosts, leading the way, carrying their victorious arrows without the bows, and the losers, as guests, following, bearing their bows without the arrows.

"Lifting" was a curious custom or amusement for Easter Monday, in these old times. Crowds of young men in holiday attire and provided with chairs adorned with white ribbons and flowers, paraded the streets and entered houses, in their search for pretty maidens, who were expected to seat themselves in the chairs and be lifted as high as strong arms found possible, for which performance, on alighting, a kiss was demanded by each gallant, custom forbidding its refusal. On Easter Tuesday the order of exercises was reversed, the women then buying the

same privilege. History records a fine of £100 paid by Edward I. to escape being "lifted" from his bed by some of his admiring female subjects, for even royalty itself had to conform to the absurd custom or pay dearly for refusal, this lifting or raising up originally typifying the Resurrection, and therefore demanding universal respect, childish and absurd and far-fetched as was the manifestation from the idea it originally represented.

Easter was in these early days the minstrels' special holiday, and Easter hymns and carols floated from every hill and valley, the singers gathering in a rich harvest from the pennies of the peasants and the gold and silver of the gentry and lords of high degree.

Among all these strange and old-time Easter customs, eggs as a necessary and appropriate feature date back as far as any, and undoubtedly were originally used as a symbol of the Resurrection, the chick from the egg and the butterfly from the chrysalis being its universal and familiar types. They seem to have substituted for the balls used for tossing in the churches by bishops, priests and choristers, in the early Romish church.

In the thirteenth century we find it recorded that "eggs were in such demand at that season that they always rose considerably in price. They were boiled very hard in water colored with red, blue or violet dyes, with inscriptions or landscapes traced upon them by a rustic process of chemistry. They were offered as gifts to the "Valentines" of the year, or played with as balls, ball playing on Easter Monday being universal in every rank."

Bacon and eggs were long a standard Easter dish, the former probably used as a rebuke to the Jews, with a dessert, by way of concession, of tansy cake or pudding, which served as the "bitter herbs" commanded for the Paschal feast. Eggs and wine were given to the singers as refreshment in return for their Easter carols. Even in Scotland, where the festivals of the church had been pretty thoroughly suppressed, "the Pace or Pasche egg," hard-boiled and dyed, seems to have been a necessity to its young people, even in the Covenanter days.

In Switzerland, too, Holy Saturday is a time-honored festival, and groups of children, with baskets of colored eggs, still follow the singers on Easter Even, with pine-wood torches, and join in the carols and general rejoicing.

The custom of egg-rolling, which seems to be preserved in this country only at the national capital, is claimed to be English and to date back to children of the fourteenth century. Germany brings evidence of its being observed among its "Kinder" at a still earlier period, and it doubtless originated in the tossing of balls and eggs in the churches at a still earlier date. Whether German or English, it is evidently Washingtonian now, and no date in the calendar is more universally and enthusiastically celebrated than Easter Monday. The schools are all closed, and at an early hour the little ones are out in force. The government clerk, going to office in the morning, meets hosts of children on their way to the White House grounds, carrying the eggs which are a necessary feature of the day's festivities. In box or basket, or clutched carefully in eager little hands. It is a democratic gathering; the "curled darlings" of the rich, with their colored or French nurses,

and in some cases a footman following with the basket of luncheon, and the children of the poor, white and black, "all sorts and conditions of" children, "without regard to race, color or previous condition of servitude," but a general holiday atmosphere pervading all alike, on every street and from all directions hastening to the same destination, the spacious grounds surrounding the executive mansion, where the undulating surface offers decided advantages for the day's occupation of rolling Easter eggs.

Thousands of eggs are eaten on the grounds every Easter, and the alarming declaration of a colored nurse on the last occasion may be taken as a basis of facts for all, allowing some margin for the vivid African imagination and their always original method of expression—"I 'clar ter goodness, I would'n be noway s'prised of dis yer chile wuz ter die 'fo' maw'nin', fer she done eat ten aigs, shell'n' all."

Thus do the Washington children celebrate their egg-rolling festival, which is a day in their calendar not surpassed by Christmas itself, and with which the old-time May Day celebration furnishes but a modest comparison. Hundreds of children go to bed on Easter Sunday with the words, if not the lines, of Tennyson's "May Queen" as their last good-night:

"Oh, wake and call me early,

Call me early, mother dear;

To-morrow will be the happiest day

Of all the glad New Year."

It is a happy day, and a long one, and it is a tired-out little crowd that at sunset fill the cars and hercules, and dog-carts and coupes, or tramp away on weary little feet to near or distant homes.

By 7 o'clock the next morning a dozen workmen are busy removing the debris and all traces of the day's festivities, and the trampled grass is all that is left to bear witness to the residents of the White House and the promenade through its beautiful grounds, of the children's annual raid on Easter Monday.

The universal custom of using colored eggs for the Easter festivities has naturally led to the exercise of considerable ingenuity, not only in methods of coloring, but in the manufacture of dyes for this purpose. Heretofore various coloring matters either in bulk, tablets, sticks or in liquid form have been used, also sheets of paper with various designs in colors thereon, which were transferred to the egg by wrapping it in the paper and placing it in warm water. This year a decided novelty has been introduced, and it comes through the Paas dye Co., of Newark, N. J. It consists of sheets of paper by means of which pictures can be transferred to the eggs, and enthusiastic comments are already being made by those who have observed the artistic effects obtained by the use of this novelty.

"American nervousness," "Rush," etc., have at last been catalogued in the ever increasing list of modern diseases, and as a rival to appendicitis, we now have "Americanitis."

On page 28 of the Era Druggists' Directory, last edition, the name of E. J. Hussey & Co. appears as Drug Brokers. This they inform us is an error, as they should appear under the head of "Introducers of New Novelties of Merit."



SALESMEN FOR ROCHESTER CANDY WORKS.

E. RUNYAN.
H. C. FAY.

W. R. MOFFAT.
W. E. CARPENTER.

G. L. EMRICK.
W. H. PHILLIPS.

THE ROCHESTER CANDY WORKS.

From the fact that the finer grades of confectionery are now recognized as appropriate and profitable side lines for the retail druggist, considerable interest is manifested both in the manufacture of such goods and in the firms manufacturing them. The Rochester Candy Works, of Rochester, New York, are one of the foremost firms in the country catering to the wants of the drug trade, to which they are already quite well known through their fine chocolates and bonbons which are distinguished by the very appropriate trade name "The Delicious." The company is now located in an elegant five-story building at 407, 406 and 411 State street, where they have a floor space of 31,200 square feet, arranged and fitted with the most improved facilities and machinery to be procured, which places them in a position to supply all demands for the highest class of goods in their line. The above group represents the travelling salesmen of this firm. No extended reference to the personal characteristics of these gentlemen is necessary as the fact is well known that they are all able to speak for themselves and their

faces are tolerably familiar to the trade in the various localities through which they travel. G. L. Emrick covers the New England territory and eastern New York; E. Runyan, Virginia, North and South Carolina, Georgia, Florida, Alabama, Tennessee, Kentucky and Missouri; W. R. Moffat, Pennsylvania, Maryland and West Virginia; W. H. Phillips, northern central New York; H. C. Fay, western New York and part of northern Pennsylvania; W. E. Carpenter, Ohio, Michigan, Indiana and Illinois.

The officers of the company are C. L. Griffith, president; Chas. R. Parkinson, vice president; Frank Aylsworth, secretary; A. S. Colebrook, treasurer.

As far as practical utility is concerned, a drug store might be located in a barn, and soda water dispensed from a barrel. But the public wouldn't stand it. People now expect the finest, and will do their trading at the most attractive store. This is the reason why a druggist is compelled to invest so much in his soda fountain—the public wants it—and will pay for it. It only remains for the druggist as a care-

ful man to get the best possible results when he invests his money in such a manner, and it is to this careful class of men that the Low Art Tile Co., 952 Broadway, Chelsea, Mass., make their claims both as to the superiority in an economical way, and the artistic features of their apparatus. Intending purchasers should correspond with them before buying.

Do you keep Pinaud's perfumes? This question is asked of the druggist quite frequently. Nearly everybody who visited the World's Fair last summer visited the elegant salon of this firm in the French section, Liberal Arts building, and came away with delightful satisfaction after sampling "Aurora Tulip," "Acacia de France," "Paquita Lily," and other fine perfumes which Pinaud had upon exhibition there. As their memories go back to the great events of the Columbian Exposition the public easily recalls incidents of this sort, and the druggist who keeps Pinaud's perfumes is quite sure of a high class patronage. Remember, free samples of these perfumes can be obtained by addressing Ed Pinaud's Importation office, 42 East 14th street, New York.

THE MARKETS.

The fluctuations noted in this market report are those affecting goods in original packages and jobbing lots. A complete price list, showing quotations as made by jobbers to retailers, will be found upon another page under the head of "Prices Current."

Advanced.—Opium, Morphine, Codeine, Arsenic, Cocaine, Cacao Butter, Balsam Peru, Vanilla Beans, Spirits Turpentine.

Declined.—Cattle Fish Bone, Lithia Salts, H. G. 11. Oil Peppermint, Gum Camphor, Japan. Salol, Naphthaline.

New York, February 27, 1894.

There are no new features in the general condition of the market of sufficient moment to excite more than passing comment. The movement in the various lines is characterized as fair and trading has been confined mostly to small-lot orders. There is a marked absence of speculative interest and purchases seem to be made to conform as closely as possible to absolute wants. There is considerable encouragement, however, in the outlook, as the approaching season will bring demands for commodities not carried largely in stock, and this stimulation cannot help but improve the general tone of the market.

OPIMUM.—Still remains active, and values are tending higher, although there has been but little change in quotable prices. Considerable interest is manifested in the treatment which this drug will receive at the hands of the Senate in its work upon the Wilson bill, and until this can be definitely determined opium may be classed as a speculative commodity. It is understood that the greater part of the stock here is held by strong parties who are not to be frightened by reports from abroad, and are in a position to watch closely all legislative tendencies. The bulk of the stock is held at \$3.25.

MORPHINE.—Is rather scarce and in good demand. Manufacturers have lately advanced prices 10 cents per ounce and outside stocks are being sold at a slight premium.

QUININE.—Continues in good demand and seems to be developing strength, although there is not much change from previously quoted prices. Orders are mostly limited to jobbing quantities, the larger buyers having nearly all taken advantage of prices previous to the recent advance.

ALCOHOL.—Trading is confined to small lots, but the volume of business is estimated to be very near the usual proportions. Previously quoted prices for both wood and grain still prevail.

ERGOT.—Improvement in the jobbing demand is noted and former prices govern most transactions. German is quoted at 24 to 26 cents and Spanish at 23 to 20 cents, according to quality and quantity.

CODEINE.—Manufacturers have made an advance of 25 cents per ounce and the alkaloid is now quoted at \$4.50 in eighths, with sulphate at \$3.70.

BORAX.—A slight improvement in demand is reported, but prices remain at previous quotations.

ARSENIC.—Is firm and the demand is for small quantities only. White is quoted at 3% to 4 cents, and Saxony Red at 6% to 6% cents to quality.

BALSAM COPAIBA.—Is in fair demand and firm prices are being maintained upon the better grades. Central American

is quoted at 38 to 40 cents, Para 45 to 48 cents.

BALSAM FIR, Canada is in moderate demand and is quoted at \$3.75 to \$4 for small lots.

BALSAM PERU.—Prices are firm with only a small jobbing trade. Prices range from \$1.40 to \$1.55.

BALSAM TOLU.—The London market indicates a downward tendency, but prices here remain as previously quoted, with but a moderate jobbing demand.

CATTLE FISH BONE.—Competition has forced quotations upon this commodity to the lowest range known during the last quarter of a century. Trieste is now quoted at 10½ cents; broken at 7½ to 8 cents.

BRIMSTONE.—Is without much interest, although there are rumors of a combination among Italian producers to force prices upward. Resublimed is quoted at 1½ cents for roll, with usual discounts.

MENTHOL.—Seems to have reached the limit of high prices and a downward tendency is now noted. Quotations now range from \$5 to \$5.25.

LITHIA PREPARATIONS.—Have been reduced 30 cents per pound. Bromide is now quoted at \$2.60; benzoate, citrate, and salicylate at \$2.55; iodide at \$5.35.

CANTHARIDES.—Trading is limited to small lots, and holders are maintaining firm prices. Chinese is quoted at 28 to 30 cents; Russian at 70 to 75 cents.

CHLORATE OF POTASH.—Is dull and quotations are nominal. German crystals are held at 14½ to 14½ cents; English at 14½ to 14½ cents.

ASAFOETIDA.—Continues active with a good jobbing demand, quotations ranging from 28 to 30 cents.

KINO.—Supplies are limited and prices are firm.

CHICLE.—Recent arrivals have made the market dull and easier, and 27 to 28 cents seem to be the ruling quotations.

SENNA.—An upward tendency in foreign markets, especially for Tinnevely, is being felt here and prices are becoming firmer.

BUCHU LEAVES, SHORT.—Are in demand and previously quoted prices are being steadily maintained.

CROTON OIL.—Has been advanced and is now held at 85 to 90 cents.

OIL PEPPERMINT.—Is easy in demand and apparently tending lower. H. G. H. is quoted at \$2.80 to \$2.85; western, \$2.45.

OIL ORANGE.—Is improving in sympathy with advices from abroad. Quotations now range from \$1.35 to \$1.85 as to brand.

OIL LEMONGRASS.—Shows a decline and some quotations are made at 80 cents.

OIL CASSIA.—Is advancing as supplies of best grade are limited in the foreign market. 85 cents seems to be the inside figure.

CASTOR OIL.—Is in fair demand, although transactions are limited to jobbing quantities. Best grades are quoted at 14½ to 15 cents in barrels and 15 to 15½ in cases. No. 3 ranges from 11¼ to 12 cents for barrels and 12 to 12¼ cents for cases.

CACAO BUTTER.—Shows an increasing firmness and available supplies are light. Bulk foreign is quoted at 32½ to 34 cents, and domestic at 35 to 40 cents in 12-pound boxes.

COD LIVER OIL.—Is in fair demand by consumers, and prices for prime Nor-

wegian range from \$19.50 to \$25, according to brand.

GLYCERINE.—Is quiet and prices are unchanged. Prime quality is quoted at 12½ to 13 cents in drums and barrels and 50-pound cans at 12½ to 15 cents.

SESAME OIL.—Is experiencing a slight advance owing to smallness of stocks. Prices range from 65 to 68 cents in barrels.

QUICKSILVER.—In only moderate demand and 45 to 46 cents is asked, according to quality.

NAPHTHALINE.—Has declined to 4 cents for balls, and 3 and 3½ cents for flake.

BLUE VITRIOL.—Demand is limited to small jobbing quantities, and ranges in price from 3½ to 3¾ cents, according to quality and quantity.

VANILLA BEANS.—Increased demand from consumers and limited supplies are creating a decidedly upward tendency of the market. Mexican beans are ranging from \$6.50 to \$13 as to quality, and Bourbons are also displaying considerable firmness owing to reported advances abroad. Cut vanillas are also in active demand at prices ranging from \$5 to \$6.50.

TONKA BEANS.—Holders are looking for a firm market and are stiffening prices. Angostura are quoted at \$1.85 to \$2 and Para at 35 to 45 cents.

SUGAR OF MILK.—Competition and accumulating stocks have tended to lower prices somewhat. Powdered is now quoted at 11 to 14 cents and double-refined American at 15 cents.

SARSAPARILLA, MEXICAN.—Is easy, though stocks are fast becoming depleted. Jobbing prices are quoted at 2½ to 10 cents.

CANARY SEED.—Is firmer owing to fair demand, limited supplies and the report that the Smyrna market shows an upward tendency. Prices range from 2½ to 3 cents.

MUSTARD SEED.—Is quiet, the California market showing signs of dullness.

RAPE SEED.—Is active and firm and supplies are limited with prospect of advance in the near future.

CELERY SEED.—Is weak and unsettled, but previously reported prices are still maintained for prime goods.

CARBOLIC ACID.—Is reported higher abroad with the result that prices here are becoming firmer.

NITRATE OF SILVER.—Shows a slight decline in sympathy with the low price of the metal.

SPIRITS TURPENTINE.—Has advanced 1 cent per gallon and the market is firm.

JUNIPER BERRIES.—Unfavorable reports from abroad have advanced prices slightly.

The recent advance in spirits turpentine and naval stores is attributed to the manipulations of the Antwerp Naval Stores Company, which seems to have gotten a corner upon the market. The matter is thus referred to by the Savannah News:

"The Antwerp Company came to Savannah last summer, and brought with it large quantities of European money, which is controlled, and with which it has been able to acquire a heavy stock of spirits, as well as of rosins. The company did a great deal for this section in bringing European money at a time when other dealers could not obtain it, and has also played in immense luck, having now

on hand about 80 per cent of all the spirits of turpentine in the market. Of the Savannah stock, which is in the neighborhood of 10,000 barrels, it has about 8,000, besides a large stock across the waters.

The consequence is, the Antwerp company has practical control of the market. The daily receipts of spirits are now rather small, and the price has advanced to 31 cents—higher than it has been at any other time during the present naval stores season. There is a bright prospect for a continued advance in price, and some of the dealers say spirits may go as high as 35 cents. The Antwerp company bought most of this spirits when it was 25 and 26 cents, and it is now in a position to realize quite handsome profits. The factors are rejoicing that the market has been forced up to that figure, while some of the buyers, who are not quite so fortunate as to have a stock on hand, are complaining of the bull."

W. H. Bowdler & Co., Boston, crude crude beeswax at 28 to 30 cents. W. H. B., refined, 30 cents; white, 40 cents; Carnauba wax, 18 to 22.1-2 cents; Ozokerite, 6 to 10 cents.

PATENTS,

TRADE-MARKS AND DESIGNS.

From U. S. Patent Office Gazette.

PATENTS.

- 513,640—Bottle-Washer.—Conrad Huether and Joseph E. Gross, South Bethlehem, Pa.
- 513,760—Paper Box.—Dwight S. Clark, Rochester, N. Y., assignor to the Stecher Lithographic Company, same place.
- 513,804—Apparatus for Inhaling Vapors.—Edward Madden, Amsterdam, N. Y.
- 513,825—Process of and Apparatus for Making Ozone.—Christen R. Poulsen, Horsens, Denmark.
- 513,899—Apparatus for Sterilizing or Cooking.—Louis Edelman, Detroit, Mich.
- 513,971—Process of Making Aluminum Fluorid.—Wilhelm Ackermann, Giebichenstein, Halle-on-the-Saale, assignor to the Grabau's Aluminium-Werke, Trotha, near Halle-on-the-Saale, Germany.
- 514,003—Process of Purifying Aluminous Minerals.—Heinrich F. D. Schwahn, Kansas City, Mo.
- 514,040—Process of Purifying Native Sulfate of Barium.—Heinrich F. D. Schwahn, Kansas City, Mo.
- 514,041—Method of Separating and Recovering the Constituents of Ores, Earths, Clays, Etc.—Heinrich F. D. Schwahn, Kansas City, Mo.
- 514,124—Process of Making Nitric Acid and Caustic Alkali.—George Lunge, Zurich, Switzerland, and Farnham M. Lyte, London, England.
- 514,125—Process of Making Caustic Alkali and Lead Chlorid.—Farnham M. Lyte, London, England, and George Lunge, Zurich, Switzerland.
- 514,318—Electrode for Use in the Manufacture of Chlorin and Caustic Soda.—James Greenwood, London, England, assignor to the Caustic Soda and Chlorine Syndicate, Limited, same place.
- 514,575—Nursing Bottle.—Edward H. Turner, Minneapolis, Minn.
- 514,590—Air Pump.—John Dickens, New Brunswick, N. J., assignor to the Dickens Manufacturing Co., same place.
- 514,632—Dimethylpiperazin.—Carl Stoehr, Kiel, assignor to the Farbenfabriken,

vormals Fr. Bayer & Co., Elberfeld, Germany.

- 514,683—Paper Box.—Sheldon E. Patrick, Rockland, Mass., assignor to the New England Folding Box Company, of Massachusetts.
- 514,838—Nitro Compound and Process of Making Same.—Robert C. Schupphaus, Brooklyn, N. Y.
- 514,812—Capsule Closer.—Karl Morstadt, Prague, Austria-Hungary, assignor to J. M. Grosvenor & Co., Boston, Mass. Reissues.
- 7,485—Processes and Apparatus for Evaporating and Calcining Alkaline Solutions.—M. L. Keen, Stroudsburg, and Hugh Burgess, Royer's Ford, Pa., assignors to American Wood Paper Company.

Patents expired during January, 1894.

- 155,825—Methods and Apparatus for Cooling and Spreading Glue.—Chas. O. Garrison, New York, N. Y.
- 155,852—Combined Siphon Tap and Stopper for Aerated Liquor Bottles.—H. J. Cole, Wandsworth Road, England.
- 155,853—Siphon Tap and Stopper for Aerated Liquor Bottles.—Henry J. Cole, Wandsworth Road, England.
- 155,964—Apparatus for Manufacturing Sulphurous Acid.—Alvaro F. C. Reynoso, Paris, France.
- 156,485—Preparing Aniline Dyes.—L. Leigh, Pittsfield, Mass.
- 156,743—Soda-Carbonating Apparatus.—J. McCloskey, East Cambridge, Mass. Expired February 6, 1894.
- 157,031—Hypodermic Syringes.—J. McMorries, Newberry, S. C.
- 156,951—Processes for Refining Crude Ozokerit.—C. M. Pielsticker, London, England.

Expired February 13, 1894.

- 157,250—Manufacture of Malt Sirups or Extracts.—O. F. Boomer and H. R. Randall, Brooklyn, N. Y.
- 157,357—Apparatus for the Manufacture of Mineral Water.—E. Cornelis, New York, assignor to himself and J. M. Elliott, same place.
- 157,413—Processes of Producing Artificial Cold by means of Anhydrous Sulphurous Oxide.—R. B. Pictet, Geneva, Switzerland.
- 157,446—Soda Water Apparatus.—O. Zwietusch, Milwaukee, Wis.

TRADE MARKS.

- 24,096—Tonic Medicine.—John N. Barker, Willard, Utah Territory. The initials "J. N. B."
- 24,097—Certain Named Remedies.—The Dysmenotone Co., Camden, N. J. The word "Dysmenotone."
- 24,098—Tonics for the Hair.—Netta Anna Catherina Folke, New York, N. Y. The word "Nadoline."
- 24,099—Hair Wash.—Seraphin Lachance, Montreal, Canada. The representation of an ornamental medallion provided with an outward ornamental circular frame, an inner belt provided with a buckle and bearing the words "Nil Sine Labore," with the word "Capilline."
- 24,134—Artificial Mineral Water.—White Rock Mineral Spring Company, Waukesha, Wis. The word "Ozonate."
- 24,140—Remedy for Neutralizing the Effects of Intoxicants.—George H. Bonte, Cincinnati, Ohio. The word "Presto-Bracene."
- 24,142—Antiseptic Chewing Candies and Gum.—The Antiseptic Company, Owensborough, Ky. The word "Antiseptic."

- 24,143—Remedy for the Diseases of the Respiratory Organs.—Angus MacKinnon, Alvinston, Canada. The word "Pine-Malt."
- 24,144—Remedy for Certain Affections of the Skin.—Daggett & Ramsdell, New York, N. Y. The word "Lettuce-Cream" printed horizontally across the representation of a head of lettuce.
- 24,145—Medicine to Purify the Blood.—Walter A. Lovering, Nashua, N. H. The word "Lovering" and the representation of three stalks of red clover with three blossoms and seven leaves attached, one of which represents a four-leaved clover with blossom attached.
- 24,146—Internal Remedy for Certain Named Diseases.—The Germozene Company, Austin, Tex. The word "Germozene."
- 24,147—Salve.—Rita E. Maunel, St. Louis, Mo. The word "Favorita."
- 24,148—Medicinal Plasters.—William H. Gannett, Augusta, Me. The word "Oxien."
- 24,149—Tooth Paste or Dentifrice.—William J. Hurd, St. Paul, Minn. The words "King Bee" and the representation of a bee's body with a portrait of the registrant for a head to the same.
- 24,174—Fountain Sirups, Flavoring Extracts and Phosphates.—J. Hungerford Smith Company, Rochester, N. Y. A disk-shaped figure bearing the words "True Fruit."
- 24,183—Family Dyes.—Heitmann Bros., Cologne, Germany. The representation of a fox's head inclosed by a circle from which radiating lines or spear points extend.
- 24,185—Toilet Lotions.—Seraphin Lachance, Montreal, Canada. The portrait of Madame Teresa Careno, a famous pianist.
- 24,186—Cosmetic Lotion, Cream Jelly, and Soap for the Toilet.—Sylvan Toilet Company, Detroit, Mich. The words "Satin Skin."
- 24,188—Antiseptics.—Chemische Fabrik auf Actien, vormals E. Schering, Berlin, Germany. The word "Trikesol."
- 24,189—Disinfecting Product.—Lebon & Salomon, Paris, France. The words "Chlorol Marve."
- 24,190—Pills.—Adolph Schmidt, New York, N. Y. The representation of two female figures, one standing and carrying a basket and holding a bunch of herbs, and the other sitting with the right arm resting on a basket of flowers.
- 24,191—Pharmaceutical Preparation for the Skin.—Henry Finkelpearl, Pittsburg, Pa. The words "Angel Balm."
- 24,192—Topical Remedy for Toothache, Neuralgia, Burns and Wounds.—Emilio Dahlhaus, Mexico, Mexico. The words "La Maravilla."
- 24,193—Proprietary Medicine Used as an Injection.—Henry F. Bader, New Albany, Ind. The word "Night" and the letter "O" inclosing the representation of an owl and the letters "W. L."
- 24,194—Certain Named Medicine.—E. M. Johnson & Co., New York, N. Y. The word "Arsenauro."
- 24,195—Certain Named Medicine.—E. M. Johnson & Co., New York, N. Y. The word "Manganauro."
- 24,197—Certain Named Medicine.—E. M. Johnson & Co., New York, N. Y. The word "Mercauro."
- 24,198—Remedy for Diseases of Women.—German American Drug Company, Ohio City, Ohio. The word "Uterina" in

BOOK REVIEWS.

- block capital letters arranged in an oblique line across a label.
- 21,199.—Medicine for Cholerine or Diarrhoea. Jason W. Carson, Indiana, Pa. The representation of a capsule bearing the letters and word "C" or "DC."
- 21,200.—Veterinary Remedies.—James F. Smith, Texarkana, Ark. The word "Horsaparilla."
- 24,201.—Hoof Oil and Ointments.—Charles F. Kissel, Indianapolis, Ind. The word "Globe."
- 24,225.—Perfumery.—The C. L. Cotton Perfumery and Extract Company, Earlville, N. Y. The word "Chrysanthemum."
- 24,227.—Balsam.—Ferdinand Mayerhofer, Brooklyn, N. Y. The representation of an angelic figure above an ellipse bearing a pair of scale balances and an anchor having the letters "F. M." on either side thereof.
- 24,228.—Iron Derivatives of Albumen.—C. F. Boehringer & Soehne, Waldhof, near Mannheim, Germany. The word "Ferratin."
- 24,229.—Diuretics.—Gaetan Fournier, Paris, France. The word "Kava."
- 24,230.—Remedies for Catarrh.—Abjahn R. Pratt, Hastings, Mich. The letters "A. R. P."
- 24,231.—Remedy for Chills and Fever.—William F. Morrow, Cincinnati, Ohio. The word "Chill-a-cura."
- 24,232.—Medicine for Certain Named Diseases.—Anthony A. Rhuland, Stoneham, Mass. The words "Traveller's Joy."
- 24,233.—Certain Named Remedies.—James O. Ducker, William T. Findly and George Harvey, Louisiana, Mo. The word "Pan-a-kas."
- 24,234.—Liquid Medicinal Compound for External and Internal Use.—Gardner S. Cheney, Boston, Mass. The letters "NPPDD" arranged in the form of a cross with the letter "P" in the center, "N" at the left, "D" at the right, "N" above and "D" below.
- 24,235.—Medicine for the Cure of Eczema.—George W. Rankin, Pekin, Ill. The words "Anti Eczema" and a monogram of the letters "G. W. R."

SHOPPELL'S MODERN HOUSES. No. 41, contains 50 colonial designs and 26 designs of other styles of houses ranging in price from \$1,200 to \$5,000. It also contains several designs for stables, store fronts, staircases, an article on picture hanging and much other matter pertaining to building. It is published by the Co-operative Building Plan Association at 63 Broadway, New York. Price 50 cents.

It is said that there are eighteen quinoline factories in the world, located as follows: one in Holland, two in England, two in Italy, three in France, four in the United States, and six in Germany.

The Faultless Chemical Co., 304 Sharp street, Baltimore, has been organized to manufacture extracts, chemicals, chewing gums, etc. Capital stock, \$10,000.

W. H. Simmons, 53 Pocommet street, Fall River, Mass., is offering to the trade a line of medicated cottons and bandages.

The Diamond Medicine Co., of Pemaquid, Me., has been organized to manufacture and sell a line of proprietary medicines.

"THE POLITICAL ECONOMY OF NATURAL LAW." The purpose of this work is to outline a political economy which is practical and natural rather than the theoretical or artificial and to present such views in a manner admitting of easy comprehension. The author finds little sympathy with the chimerical plans of professional labor reformers, sentimental philosophers, etc., and apparently regards the present general condition of society as one which has come through immutable natural laws. The faults of the present "social system" are ascribed to moral delinquencies in personal character, which is really all the obstacle there is in the pathway of the most radical reformer and his plans. However all criticism is disarmed by the statement, "In whatever way superficial critics may construe detached statements of this book, the fact will remain that its deepest intent and animus is the true welfare of the workman." As the subject of political economy has probably never occupied so much attention in the popular mind as at present, this work may be considered a valuable addition to the literature of a subject which presents many phases, and of which many men have many minds.

"THE PHYSICIAN'S WIFE.—The authors was not pleased when she learned how little record appears in history and literature of the doctor's wife and she decided to correct this deficiency so far as she might. She has done extremely well. Her homely, simple recital of the trials, cares, sorrows and joys of the wife of the country practitioner appeals strangely to the sensibilities, the frequent bits of pathos and humor rendering each page fascinating and holding the reader's attention to the end. She shows the physician's wife in her true position, sharing his burdens, cheering him when he is oppressed with responsibility, contributing to his professional prosperity, a true helpmate in all that goes to constitute his best and truest success. Doctors all, and their wives too, should read this little work.

"SYSTEM OF INSTRUCTION IN QUALITATIVE CHEMICAL ANALYSIS.—In January, 1893, we carefully reviewed this work, then in its first edition. This early appearance of a second edition is proof of the correctness of our prediction that it would win considerable acceptance as a text book in class room and laboratory. This has been its reception, and it is not necessary to repeat or add to the description and commendation of our former notice. The book speaks for itself and speaks well.

"The Political Economy of Natural Law.—By Henry Wood. Cloth, 305 pages. Price, \$1 25. Boston, Lee & Shepard.

"The Physician's Wife: and the Things that Pertain to Her Life. By Ellen M. Firebaugh. With portrait of author and 44 photo-engravings. 20 pages. Extra cloth, \$1 25 net. Special limited edition, first 500 copies, Half-leather and Vellum cloth, \$3 net. Philadelphia: The F. A. Davis Co.

"A System of Instruction in Qualitative Chemical Analysis. By Arthur H. Elliott, Ph. D., Professor of Chemistry and Physics, and Director of the Chemical Laboratory in the College of Pharmacy of the City of New York. Second edition, cloth, 129 pages, \$2, published by the author, College of Pharmacy, City of New York, 1892.

PEORIA, ILL.

Samuel Cottonberry is the possessor of a camera. It will be put into good use at the I. P. A. meeting.

Henry Woodward, senior member of the Allnair & Woodward firm, died February 11 of Bright's disease.

Julius Ulrich has finished his junior course at the Northwestern University, department of pharmacy.

T. N. Jamieson, of Chicago, attended the Republican Editors' Association meeting held here during the first week in February.

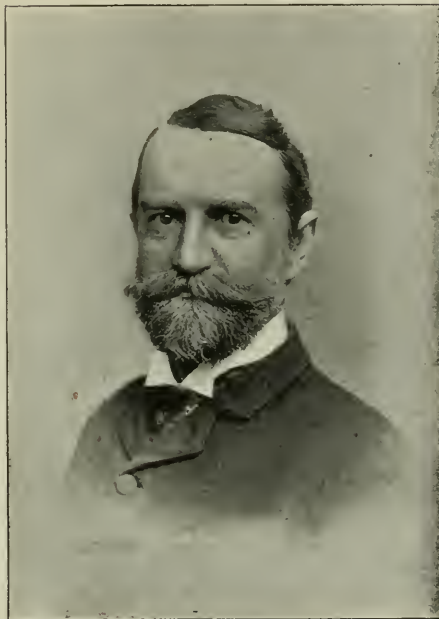
Charles Zimmerman and family intend to start May 1 on a trip to Germany. Mr. Zimmerman was to have been our local secretary of the Illinois Pharmaceutical Association, but on account of his trip he transferred his office to Charles A. Strathman.

Among the printed matter sent out by the secretary of the Illinois Pharmaceutical Association we find a notice: "I. P. A.—The next meeting of the Illinois Pharmaceutical Association will be held in Peoria August 14, 15, 16, 1894. Peoria is noted for the splendid manner in which they entertained those in attendance years ago, and I am assured by its local secretary, Charles A. Strathman, that Peoria will do her level best to entertain all who come in a manner that they will be right glad they came."

Now, that is perfectly correct. We have an elegant city here, can show visitors beautiful scenery and town lots, cheap; all the facilities for a good and profitable time. Manufacturing drug houses will be pleased to show them through their establishments. The distilleries are at their disposal, where they can see the manufacture of alcohol, also the glucose works, charcoal works, etc. At present there seems to be a slight misunderstanding among the members where they should hold their meeting. Some want the Women's Club hall, others want the Turner Hall. The proper place to hold the meeting is in the auditorium of the Y. M. C. A. building, which faces the court house square, one-half a block from the two principal hotels in the city, and which has the best, all around hall for seating capacity and acoustics. It certainly would not look very well to have the association meet in our city in an out-of-the-way place, so that the citizens of Peoria would not know anything about it.

As was predicted, the Takamine process which is being tested on a large scale in one of the distilleries, finds its star gradually setting lower and lower. The Takamine process uses corn and small grain instead of rice. It dispenses with malt. In the malt process the yield averages about 5.40 gallons to the bushel. So far as can be learned, the highest yield by the Takamine process is 5.35. There is a vast difference between yeast and koji, for where the former is made it can be readily told how much it will yield; but with the koji it is uncertain. At first it was said that the koji process would revolutionize the distilling industry, but at present the claim is that they cannot make more from the same grain, but can make it cheaper.

The Lettuce Cream Co., 114 Fifth avenue, New York City, has been organized to manufacture a line of toilet preparations.



SAMUEL P. SADTLER.

THE subject of this sketch has just about reached middle life, having been born July 18th, 1847, at Pinegrove, Schuylkill Co., Pennsylvania, where his father, a Lutheran clergyman, was at that time residing. His preparation for college was acquired in the public schools at Easton, Pa., and he was graduated from Pennsylvania College at Gettysburg in that state at the age of 20. Having acquired a fondness for scientific studies during his college course, he determined to choose teaching as a profession. After a year spent at Lehigh University, which had been recently founded at Bethlehem, Pa., he went to Harvard University and entered the Lawrence Scientific School, then regarded as the foremost chemical school in the country. He remained here, working under Dr. Wolcott Gibbs and Professor Josiah P. Cooke, until January, 1870, when, having received the degree of S. B., he went to Germany to finish his education and entered the laboratory of Prof. Woehler at the University of Goettingen. He was one of the last, if not the last, student admitted to the privilege of working directly under the venerable Woehler, who had himself been a student of Berzelius, so that the great Swedish pioneer of modern chemistry did not seem to him quite the historical myth that he appears to the present student of chemistry.

Having received the degree of Doctor of Philosophy in the spring of 1871, he returned to America, and in September began his teaching career as professor of chemistry and physics in the Pennsylvania College, at Gettysburg, from which he had been graduated four years previous. In 1874 he accepted the position of professor of general and organic chemistry in the University of Pennsylvania and removed to Philadelphia, where he has since resided.

In 1878 the pressure of advancing years and bodily infirmities made it necessary for Dr. Robert Bridges, for many years the professor of chemistry in the Philadelphia College of Pharmacy, to seek help in his work, and Dr. Sadtler was called upon to assist him by taking up the junior lectures for the winter of 1878-79. In the spring following Dr. Bridges was made emeritus professor and Dr. Sadtler was elected his successor. Thus was begun his connection with pharmacy, which has become closer with successive years of teaching and association in the oldest of our colleges of pharmacy. His connection with the University of Pennsylvania, on the other hand, was severed in 1891, after seventeen years of service, in order to find time for his practice as consulting chemist and expert in chemical patent cases, which had begun to make demands upon him.

His literary activity began in 1870 with the publication of his Cambridge thesis work in Silliman's American Journal of Science, and has continued steadily to the present. Besides a score or more of published scientific papers and lectures, he published in 1877 a "Handbook of Chemical Experimentation" for the use of teachers and lecturers, and in 1891 a "Handbook of Industrial Organic Chemistry," which latter work has had an extended sale both in this country and in England. A companion volume on "Industrial Inorganic Chemistry" is in course of preparation. Since 1880 he has been chemical editor of the United States Dispensatory, and with Professors Wood and Remington has seen through the press the fifteenth, sixteenth and seventeenth editions of this great work. A text book of chemistry for the use of pharmaceutical students, which he has written jointly with his colleague, Prof. Henry Trimble, will appear in the fall. He has been a fellow of the Chemical Societies of London and Berlin and of the American Chemical Society for a number of years, but made his first appearance as a member of the American Pharmaceutical Association at its recent meeting at Chicago, although as a delegate to the Pharmacopoeia Revision Convention of 1890 at Washington, he had become acquainted with many of the most active workers in pharmacy.

ENTERED AT THE DETROIT O. A SECOND-CLASS MATTER

ESTABLISHED 1887

THE PHARMACEUTICAL ERA.

SEMI-MONTHLY.

Issued on the 1st and 15th of Each Month.

D. O. HAYNES & Co., Publishers,
DETROIT, MICH.For subscription and Advertising Rates see
advertising page 30.

REMOVAL NOTICE.

After May 1st, 1894, the publication office of
THE PHARMACEUTICAL ERA will be at

100 Fulton Street, New York City.

With increased facilities and the additional
advantage of being in close touch
with the leading drug markets, we expect
to introduce many new and valuable fea-
tures in the Journal, which will be to the
advantage of our subscribers and adver-
tisers.

D. O. HAYNES & CO.,
Publishers.

EDITORIAL.

ILLINOIS PHARMACY LAW.

In our last issue were a few comments
upon the Board of Pharmacy's interpre-
tation of the Illinois pharmacy law, and
attention was called to a probable error
in the board's circular. The secretary re-
plies that some of the circulars sent out
did contain the error mentioned, but it
was quickly discovered and corrected.
The sentence should read: "The sale of
patent medicines is not prohibited by the
pharmacy law," thus confirming our un-
derstanding of the act.

THE DEANS' CONTROVERSY.

Space is given in this issue to a reply
from the dean of the Illinois College of
Pharmacy to the dean of the Chicago Col-
lege of Pharmacy. Mr. Martin, when he
commented upon American pharmacy,
probably had little thought of reviving
the Chicago quarrel, but some of his re-
marks seem to have had that effect. We
have now given the two factions equal
opportunity for attack and rejoinder, and
will let it go at that. No good can come
from acrimonious strife, but it must be
confessed some of the statements and ad-
missions made by the rival deans afford
confirmative support to certain remarks
of Mr. Martin.

HOBBIES FOR THE DRUGGIST.

One of our contributors has given us for
this issue a scheme for the analysis of
cryptograms. This paper will, no doubt,
attract interest from readers with aspira-
tions in botanical directions, and to others
it will suggest subjects for study in leis-
ure moments and lines of investigation
which may be made not only of interest
but of considerable profit to the pharma-
cist. It is a good thing to have a hobby,
whether it be cryptograms, perpetual mo-
tion or flying machines, though, of the
three named, the first is most promising.
In the study of such a subject comes into
play the training acquired in the several
branches of one's pharmaceutical educa-
tion, a knowledge of botany and practical
microscopy being specially necessary.
The study of unusual or generally unob-
served parts of creation, if undertaken in
a systematic manner and prosecuted vigor-
ously, is of intense interest and in-
struction. We are not cryptogramical ex-
perts, but can easily realize the true satis-

faction Mr. Sollman receives in this study,
and the suggestion is offered by him and
by us to other druggists that if profitable
reaction be desired, here is presented a
pleasing field. The man with a hobby is
the one who is truly happy and generally
the most useful.

A NEW PLAN.

Pharmaceutical journals generally and
many writers upon pharmaceutical topics,
in discussing the causes of the present
demoralized condition of the drug trade
regards the traffic in patent medicines,
have advanced as the true practical and
ethical solution of the problem that druggists
make their own preparations, and
build up a trade strictly legitimate and
within their province as pharmacists, and
urged that the true way of overcoming
the patent medicine evil was to leave this
class of goods alone and devote all en-
ergies to the fostering and advancement
of the true professional pharmaceutical
spirit. Many have been the papers and
editorial utterances under the caption of
"Make Your Own Pharmaceuticals," but
elsewhere in this issue, says that the prac-
tice of making one's own pharmaceutical
preparations is the cause of and not the
remedy for the cut rate abuse. We con-
fess that the matter has never before ap-
peared to us in this light, and it will take
considerable convincing before we are
willing to advocate that the druggist dis-
continue the manufacture of his own
pharmaceuticals and confine himself to
the sale of patent medicines. We print
the letter in question, for the reason that
we like to be fair and give every man a
chance to discuss questions of concern to
pharmacists.

"BLIND" PRESCRIBING.

We are asked if the physician is under
obligation, morally, professionally, or le-
gally, to write his prescriptions in a way
decipherable by pharmacists in general, or
may he, if he choose, employ "blind" pre-
scriptions, understood only by a certain
dispenser. Morally and professionally he
is under such obligation, but legally he is
not. Our correspondent supplies us with
samples of a certain physician's prescrip-
tions that can be understood only by
initiated pharmacists, and this correspond-
ent complains that he has frequently been
obliged to tell his customers that he could
not put up these prescriptions, not know-
ing what they called for. Naturally, he
sees injury to his business in the turning
away of customers who are told of this
inability. The physician who wrote these
particular prescriptions may have be-
lieved that he had good and sufficient rea-
sons for not trusting them to any save
the one pharmacist to whose store they
must go for filling, but a less flattering
supposition is that he had financial rea-
sons, for the druggist who can translate
the prescriptions is the physician's own
brother. A physician who will enter into
financial arrangement with any druggist
is certainly to be considered unprofes-
sional, unethical. Though the majority of
physicians and pharmacists are in their
professions for the sake of a livelihood
and what they can make out of them,
still there are higher considerations than
mere financial gain. The health and safety
of the public must not be trifled with, and
endangered by blind prescribing, prescrip-
tion percentage, and other unprofessional
conduct.

WHO IS RESPONSIBLE.

In Montreal early in February occurred
a more than usually distressing instance
of an error in the dispensing of drugs.
A physician, wishing to administer to his
wife a dose of sublimate of bismuth,
telephoned to a drug house for a supply.
This drug house, being out of the article,
sent the order to a second wholesale
house, and the latter supplied a two-pound
package labeled bismuth. The first druggist
then sent the required amount to the
physician. Upon administration to the
patient, however, alarming symptoms
quickly arose and, despite utmost exertions,
her life was sacrificed. Examination
of the contents of the package
showed it to be tartar emetic. All the
evidence goes to show that the error in
labeling occurred at the second drug
house, upon which, of course, the respon-
sibility primarily must rest. But the
question arises, is the druggist who im-
mediately supplied the physician culp-
able? In opening the larger package to
withdraw the smaller amount needed,
should he have detected the error in the
contents? Upon presenting the case to
druggists for comment, some say the
mistake should have at once been ob-
served, while others say the dissimilarity
in appearance between bismuth sub-
nitrate and tartar emetic is not sufficient
to allow of distinction between the two
save by regularly applied tests. It is
not sufficient to say that this is but an-
other instance of an unavoidable accident.
The responsibility cannot be shifted from
the house whose business methods are
such that a single infraction or negligence
in the method of wrapping and packing
goods admits of such serious results.

TEACHING METHODS IN SCHOOLS OF PHARMACY.

The past few years have seen great al-
terations in the methods of teaching stu-
dents of pharmacy, and there has been
rapid change from didactic systems to the
more modern forms of manual or practical
training. Now every college of pharma-
cy has its chemical laboratory, some
of them teaching chemical analysis to a
very satisfactory extent. Nearly all have
pharmaceutical laboratories where the
student may acquire manual dexterity and
practical experience in compounding phar-
maceutical preparations and remedies.
Farther than this some have not yet
progressed, but there are others, and
not a few, which have attained to the
dignity of microscopical and toxicological
laboratories and the practical manual
teaching of botany, pharmacognosy, etc.
In this issue is given the first instalment
of a valuable article upon the teaching of
pharmacognosy, a subject and branch of
pharmaceutical education which is now
receiving from progressive teachers and
the progressive element of the profession
that recognition to which it is so justly
entitled. The writer presents his points
plainly and forcibly, and instructors in
other institutions may be able to glean
from the paper much of moment and
value to them in the way of suggestion
and for the improvement of teaching
methods. Subsequent portions of the paper
will be devoted to detailed, practical
descriptions, and consistently illustrated.
The student of pharmacy will profit, too,
with the teacher in having placed before
him the importance of this branch of

pharmaceutical training, and the way so plainly marked out for him for the study of this essential.

LIQUOR SELLING BY CHICAGO DRUGGISTS.

The editorial remarks in our last issue upon this topic have called forth a protest from Mr. Hogan, printed on another page. He feels aggrieved, and naturally says so, by the implied accusation that he is a law-breaker. In our remarks we had no intention other than to discuss generally the question of illegal liquor sales by druggists, using the recent prosecutions in Chicago as example or text. We are sorry that we should have offended Mr. Hogan and are quick to offer him opportunity for rejoinder and defense. The published accounts and information coming to us from other sources may have been incorrect, and we are glad to believe Mr. Hogan guiltless of infraction of the liquor law, but in general we see no reason as yet to modify our remarks as published. Where there is so much smoke, there must be some fire, and we believe it is true that some of the druggists arrested pleaded guilty of the offense and paid their fines without protest. We have no sympathy with those who would agitate this question solely from motives of a political character, but it cannot be denied, nor do we think Mr. Hogan would attempt to deny, that there are druggists in Chicago who violate the liquor law and that some or many of these were included among those arrested. We would repeat our belief, expressed on many previous occasions, that the liquor laws under which druggists are constrained to carry on the business are very carelessly observed. We are glad that Mr. Hogan is among those who are strict in their observance of the regulations, and believe he will be with us in denouncing the careless and wilful law-breaker.

EASTER.

Of all the holidays, legal or otherwise, there are none in which the druggist is not interested or more or less conspicuous. His place of business takes on a decidedly lively aspect during the season of the midwinter holidays, when the influence of St. Nicholas and the desire to turn over a new leaf pervade the land. On Thanksgiving day he makes no demonstration, except that he quietly remembers his mercies and is thankful that matters are not worse than they are. On the nation's birthday, in the smaller towns, he joins with the rest of his mercantile brethren in dealing in firecrackers and other lurid material, and on Decoration Day he is not guilty of causing a break in the universal display of his country's colors. During the season of St. Valentine he furnishes much of the pictorial material with which one-half the world either maddens or gladdens the other half. As for the celebration of the occasions which mark the birth of the truthful father of our country and that of the labor movement, the druggist observes the spirit of these all the year round.

In view of his attitude towards holidays in general, it is therefore to be expected that the approaching event of Easter will be one upon which he will bestow considerable attention. While the innocent rabbit is compelled to pose before the younger generation as the producer of colored eggs, the druggist is busily en-

gaged in selling to the elders some of the material which aids in the deception.

When the deep significance of this coming holiday is considered, it is hoped that its material aspect will be as bright as it is religious. The country needs a resurrection, and an awakening into a new life. There is a spirit of optimism already abroad, and people are everywhere saying that improvement in business affairs must and will come soon. Let us date the beginning of this revival on March 25, 1894.

DOCTORS ARE NOT PHARMACISTS IN KENTUCKY.

There are some people who cannot be convinced that the physician's training is not of quite the right kind to qualify him for the practice of pharmacy, and the legislatures of the different states are frequently called upon to pass bills allowing the physician the right to open a drug store and compound medicines merely upon showing his diploma from a college of medicine. On January 19 a bill was introduced into the House in Kentucky, the purpose of which was to make medical schools and colleges equal and co-ordinate with pharmaceutical schools and colleges in their powers and authority to issue and grant certificates, licenses and diplomas to graduates to compound medicines to sell drugs and act as pharmacists in the State of Kentucky. This bill was passed by the House before the pharmacists of the state had been awakened to the danger. As soon as the news of its passage was spread abroad, the druggists and many of the medical fraternity went vigorously to work to prevent its passage in the Senate, and this, we are happy to state, they accomplished. The bill did not emanate from any of the colleges of medicine, for to the credit of these institutions, it may be said they are utterly opposed to such an unjust act and the faculties of the colleges in Louisville express themselves very decidedly to that effect, saying that the curriculum of the college of medicine embraces no adequate provision for pharmaceutical education, and a regular medical education does not qualify a medical graduate for the practice of pharmacy. Medical colleges in Kentucky annually graduate several hundred young men, who, if this act had become a law, would have received the privilege of opening drug stores in competition with the regular pharmacists, whose ranks are recruited from the college of pharmacy to the number of only a score or so annually. No one in either profession with any true knowledge of the character and responsibilities of his calling, would be willing to father such a proposition as the one which failed of approval in the Senate of Kentucky.

DO NOT INCREASE THE ALCOHOL TAX.

The Wilson tariff bill, as amended in the Senate finance committee, is now the topic of discussion in the Senate, but no one can yet predict with any measure of certainty what way the critter will jump. Some features of the bill, as it now stands, are of greatest importance to the drug trade, and it is not yet too late to work for modification of the obnoxious propositions it may embrace. Of special significance are the internal revenue and customs features. The sections covering the tax on spirits are new throughout and are a substitute for the house sections struck out. The main section of the sen-

ate bill is as follows: "That on and after the first day of the second calendar month after the passage of this act there shall be levied and collected on all distilled spirits in bond at that time or that have been, or that may be then or thereafter produced in the United States on which the tax is not paid before that day a tax of \$1.10 on each proof gallon, or wine gallon when below proof, and a proportionate tax at a like rate on all fractional parts of such proof or wine gallon: Provided, that in computing the tax on any package of spirits all fractional parts of gallon, less than one-tenth shall be excluded."

The changes made in the tariff on imported wines are not many. On all spirits and cordials additional provisos are ordered declaring in effect that when imported in bottles and jugs no additional duty shall be assessed on the bottles and jugs. The following language in the Wilson bill is stricken out:

"All compounds or preparations, of which distilled spirits are a component part of chief value, not specially provided for in this act, there shall be levied a duty not less than that imposed upon distilled spirits."

In place of this the following is inserted: "Upon all compounds or preparations containing alcohol there shall be levied a duty at the rate of \$1.80 per proof gallon upon the distilled spirits contained therein, in addition to the duty provided by law upon the other ingredients contained in such compounds or preparations."

The drug trade is protesting vigorously against an increase in the tax on alcohol, and some associations, the Iowa Pharmaceutical Association is one, are urging that druggists write to their United States Senators and impress upon them the grievousness of the burden it is sought to impose. The tax on alcohol already amounts to five times the cost, and there is no reason why a necessary article should be so overburdened with taxation.

Alcohol is a necessity, for it enters into the composition, or is used in the manufacture, of almost every medicine sold or dispensed. The bill now pending proposes a tax equivalent to \$100 on every druggist in the country, on some a much greater sum, and must come wholly from their profits, which cannot be proportionately increased. If druggists are prompt in writing to their Senators, our Iowa brethren believe this section of the bill will be defeated, and we join with them in strongly urging that immediate action be taken. A day may mean success or failure.

THE IMPORTANCE AND VALUE OF ORGANIZATION.

The retail drug trade has, for some months past, given evidence of very unusual interest and concern, the result being the formation of many local associations and the stirring up of state organizations to the end that the financial and commercial interests of the pharmacist may be better conserved and forwarded. The trade of the entire country has long suffered from the defection of a large proportion of the sale of patent medicines into other channels, and, as this branch constitutes a very important portion of the druggist's business, he has contemplated with fear and trembling the immediate as well as prospective results of this diversion. The trade is passing through a critical period in its his-

tory, and that this is realized is evidenced by the interest manifested in any plan, any movement, for the correction of existing abuses. The patent medicine has been discussed in all its phases, and the issue brought fairly before the trade is, whether the business in proprietary articles shall be restricted to druggists and prices maintained at certain fixed figures, or shall this traffic be thrown open to general competition by all branches and varieties of merchants. Druggists want to keep this trade and propose to do so, if possible, but just what is the proper way to keep it is the question. All are united, however, in saying that if there is to be salvation, it must come through thorough organization of the retail trade for the purpose of concerted, harmonious and strong action. Acting upon this principle, druggists in towns and cities throughout the country are combining into local organizations. We present on another page the report of the first annual meeting of one of these organizations in Rhode Island, which shows what may be done through the earnest effort of even a handful of persistent workers. Nearly every town of any size in the New England states has its local association of druggists, and similar bodies are to be found in every other state of the union, though, as yet, not in every town. Within the past twelve months, however, a highly gratifying number of these local bodies have been formed, mainly for the purpose of giving support to the Inter-State Retail Druggists' League's efforts for the protection of the trade against the cutting of prices on patent medicines. Whatever may be the criticisms upon the Detroit plan, the fact remains that it can be made a success if there be sufficient unity and combination in the trade. This plan is offered to the druggists, and, if it be not accepted heartily and enforced vigorously, there is no doubt that it will be long years before any one will have the courage and conviction to propose any other method for the relief of the trade. Organization is the only way (as regards proprietary preparations) to place the business once more on a paying basis. We congratulate the druggists of Rhode Island upon their recognition of this fact, and would recommend to the profession in general that similar measures be adopted by the druggists in every town and city, and, if there be virtue in the proposition that the trade in patent medicines can be regulated, the matter can, through union of the trade, be quickly and satisfactorily put to the test.

TO INCREASE TRADE.

An all absorbing question is how to increase the trade of the retail drug store. The proper methods to be followed to attain this desirable end depend largely upon circumstances. Location of the store and the character of its trade must govern the nature of the measures to be followed to increase the trade. Some have found it possible to carry on a strictly legitimate pharmacy, dealing in nothing but drugs, medicines and compounding of prescriptions. In another locality, however, the druggist is obliged not only to carry patent medicines and sundries, but to call attention to the same by the distribution of suitable advertising matter. These two cases may possibly be regarded as the extremes. The professional side of pharmacy must to a greater or less extent be superseded in

many localities by the mercantile side, as there is not sufficient profit in the small prescription trade or legitimate pharmacy which can be there carried on to warrant close adherence to this professional side of the business. In fact, many druggists are of the opinion that with the progress of time, pharmacy in the United States will become less and less a profession, and more and more a trade, and it is true even now that the most successful pharmacists are those possessed of good business ability, and those who carry into the conduct of their drug stores the business principles of other lines of trade.

AN OUTRAGEOUS PROPOSITION.

The pharmacists of Ohio are receiving a petition and circular letter from the State Pharmaceutical Association, the latter reading:

"Dear Sir—The Committee on Pharmacy Law of the O. S. P. A. are obliged once again to make a fight for our rights in the state legislative hall, against senate bill No. 134, introduced by Senator Abbott, of Morgan county, who seems determined to have a bill passed that will practically repeal the present Pharmacy Law, which has stood the test for ten years and has been copied by twenty-seven states in the union. The change in his bill is that for three months on and after its passage the state be opened, and that everyone who had been engaged in a drug store for five years can register as a pharmacist or assistant pharmacist, as the case may be, without any examination whatsoever, which would, we believe, let in all the incompetents of the country, who have heretofore failed to pass the examination, and would fill our state with pharmacists (?) in name only and would greatly lower the present high standard of our profession in the estimation of the entire country, who now look to Ohio as a progressive State and most certainly not the one to take a step backward.

The passage of the proposed bill would be a great injustice to all who have made pharmacy a study and have qualified themselves and passed a successful examination before the State Board of Pharmacy. If the bars can be thrown down this year for three months, so can it be done next year, other years and forever, and in view of the above facts we wish to impress upon you the importance of immediate action and now ask you to call at once a meeting of your local druggists or get up a petition and have it signed by all of them and forward it at once to your State Senator at Columbus, to oppose the passage of Senate bill No. 134 by Mr. Abbott, at all hazards.

Should you be the only druggist in your town favorable to the defeat of said bill, write at once a personal letter to your Senator and use all influence you can bring upon him to oppose said bill. Do not delay in this matter, for a few days may make a big difference."

The petition bears the signatures of many prominent druggists who, after stating the belief "that the public safety and health require that the people should be protected from incompetent pharmacists, and assistant pharmacists, and that no person who has not been found competent upon examination by the State Board of Pharmacy, shall be permitted to compound medicine, prepare the prescriptions of physicians, or sell at retail for medicinal purposes, any drugs, medicine or

poisons, respectfully pray that the present pharmacy law be not amended as proposed by Senator Abbott's Senate bill No. 134."

The newspapers of the state are, at least many of them, outspoken in condemnation of the proposed measure. The so-called amendment simply means a total undoing of the pharmacy law, that has been enacted through the efforts of the best men in the profession all over the state. The public scarcely realizes that the responsibility of a druggist is nearly as great as that of the physician, whose prescriptions he fills. It is the duty of the pharmacist to know when he sends out a prescription that it is not capable of producing poisonous effects in the prescribed dose, and a part of his business is to look for these little accidents. Moreover it occasionally happens that even the best of pharmacists may also make a mistake. How much more frequently would errors be likely to occur, then, at the hands of incompetent men. It is to be regretted that such a worse than useless bill, should cause such a waste of time and money among pharmacists all over the state.

PILLS OF OLEATE OF MERCURY.—

From La Med. Sci. the Nat. Dr. abstracts a method proposed by Quinquand and Portes: "Dissolve in a sufficient quantity of water, 30 grams of medicinal soap and then precipitate by the addition of salt water; decant and repeat the operation several times. Cast on a bit of oil cloth and wash very lightly with distilled water, and finally dissolve the soapy residue in a large quantity of water. In another vessel dissolve 13 grams of 50 centigrams of bichloride of mercury in 50 centigrams of distilled water and mix the two solutions with constant agitation. At the end of several hours collect the precipitated oleate of mercury, wash by malaxation and preserve in parchment paper, kept carefully from the light. The pills are made with this oleate and licorice, and should be immediately coated with melted salol. Each pill should contain 15 centigrams of the oleate, representing about 4 centigrams of metallic mercury. Pills thus prepared are free from all the defects and bad effects of the oleate otherwise prepared, as they do not disturb the gastric functions, and are absorbed in the intestine. They are especially valuable in the treatment of syphilis and syphilitic affections."

ANALYSTS' REPORTS.—In a legal case in England involving the quality of a certain brand of rum, the analyst reported: "I estimate the sample of rum to contain an excess of water over and above that allowed by act of Parliament, I am of opinion that the sample is not a sample of genuine rum." The bench declined to convict, on the ground that the word "estimate" was used instead of "find." An appeal was taken by the prosecutor, but the appeal was dismissed.

UNIVERSAL PILL EXCIPIENT.—N. A. Upham told his fellow members of the Connecticut Pharmaceutical Association that the following excipient would prove satisfactory in the majority of cases. He mixes together 1 dram of powdered acacia and 2 drams powdered tragacanth and thoroughly incorporates 5 drams glucose and 2 ounces glycerine, finally stirring gently to thicken. The product is kept in a well-covered jar.

[Written for the Era.]

PHARMACOLOGY—ITS SCOPE AND THE METHODS OF TEACHING IT.

By J. O. Schlotterbeck, Ph. C., B. S., Instructor in Pharmacology and in Botany, in charge of *Materia Medica*, University of Michigan, School of Pharmacy.

INTRODUCTORY.

We are continually reminded of the great advancement of science by the ever increasing demand for better and higher education in all lines of commercial and professional activity. In order that pharmacy may keep pace with this onward movement and maintain its position among the nobler professions, it is obvious that the educational standard of the calling must be raised. The greater the intellectual enlightenment of an individual, the higher his position in the social world. So also we may assert that the greater the scientific requirements of a profession, the more exalted its position in the world of science.

The present status of pharmacy may be largely attributed to its overcrowded condition; and it is an undeniable fact that the ease with which candidates are officially declared competent to assume and perform the responsible duties of the pharmacist is, in a great measure, the source of the evil. As has been voiced many times, the only remedy for this bane of incompetency is to raise the standard of education so that only those who can pursue the approved courses of pharmaceutical study intelligently and satisfactorily may be allowed to follow the calling.

Since American pharmacy is not, as in some other countries, under government control, there is consequently little hope for reform from that direction. The national and state pharmaceutical associations have accomplished much good, and can do a great deal more in bringing about the much desired reformation. They should investigate the nature and the amount of the instruction given, and high standards of requirement should be established for entrance to and graduation from schools of pharmacy. By using their united influence for the enactment of proper legislation, these bodies may aid materially in lifting up the profession to that lofty position where it naturally belongs.

It is universally admitted that the individual courses of instruction in any institution cannot be woven into satisfactory and symmetrical curriculum without frequent consultations by the teachers for the purpose of exchanging their views and discussing new ideas. As the old maxim has it: "Two heads are always better than one." In order that pharmaceutical education as a unit may be of the highest excellence, it also becomes necessary for the individual institutions to throw aside prejudices and self-centered motives, and to compare and discuss their plans of instruction, a course which would result in the eventual improvement of them all.

Let us consider for a moment all the schools of pharmacy in the United States combined into one grand institution. This one institution would have but one purpose in view, and that the proper equipment of the student who intends to follow this profession. Now let us observe carefully if the theoretical preparation of the students leaving this institution is of a uniform character, as in-

dedicated by their diplomas. As at present conducted do we notice any uniformity in the excellence and thoroughness of the instruction? This question requires no answer; it is only too obvious. It is reasonable, then, to expect any uniform proficiency in the graduate with such flagrant deficiencies in the methods of teaching? Here lies the key to the whole situation. The entire profession, and not a small fraction of it, must be elevated in order to do appreciable good. Without discussing the causes of these inequalities any further, suffice it to say, that the quality and not the quantity of graduates is the important factor in the solution of this vexing problem.

It has been suggested that a portion of the time allotted to the section on pharmaceutical education and legislation in the American Pharmaceutical Association might profitably be devoted to the explanation by the teachers of the methods of teaching in vogue in their various institutions. For various reasons this would not be altogether practicable. Not much headway could be gained in so short a time. No better plan presents itself than the expounding of the question through the columns of the pharmaceutical press. Since we have motives in common, we have no secrets in our methods of instruction. Accordingly, without attempting to say what an ideal course of pharmacology shall consist of, the writer will merely explain as comprehensively as possible the method of instruction employed in the School of Pharmacy of the University of Michigan. The course as outlined is by no means entirely satisfactory, but efforts are constantly being made to improve it. This paper will have accomplished its purpose if others will be stimulated to make public their methods of teaching, thus giving information which will be of benefit to all concerned.

By way of introduction, it may be well to review briefly the scope and history of pharmacology.

Of the three related sciences, botany, *materia medica*, and pharmacology, the latter, as indicating a distinct branch of knowledge essentially pharmaceutical, has never received the popular recognition accorded the former two. *Materia medica* and pharmacology are often used in the same sense. Perhaps botany is more explicitly defined than either of the other two. *Materia medica* has been an uncertain expression, as is demonstrated by the variety of definitions given of it in the numerous works upon the subject. Because of this elasticity, the term is used rather loosely, and frequently to cover odds and ends in college curricula. In England, pharmacology and *materia medica* are employed synonymously with pharmacology. In this country general *materia medica*, *materia medica* proper, and pharmacology cause no little confusion, so that we are frequently asked to define them.

In the present accepted use of the term, general *materia medica* embraces everything relating to remedies employed in the treatment of disease. This would naturally include a complete description of the origin of the drugs, their physical and chemical properties, their physiological actions, and therapeutic uses, and the methods of preparing, combining and dispensing them. While we still occasionally hear of individuals professing to impart knowledge upon so many differ-

ent branches of study, it is contrary to the growing tendency toward specialization and concentration. The successful teachers and workers of to-day are those who devote their undivided attention in some special direction.

The necessity for a division of labor in general *materia medica* became apparent long ago, and a division of science followed in consequence. As a result, we have embraced in the scope of general *materia medica*:

I. Pharmacology—often called *materia medica* proper—which is the scientific study of drugs.

II. Pharmacology—(Pharmacodynamics)—which treats of the physiological action of drugs.

III. Pharmacy Proper.—The science and art of properly preparing, combining and dispensing drugs.

IV. Therapeutics.—The science which treats of the uses of drugs for the prevention and cure of disease.

Since the main duty of the pharmacist is to furnish authentic drugs of unquestioned purity and quality, and to select, prepare and dispense them properly, it at once becomes evident that of the above applied sciences those of pharmacology and pharmacy proper, form the foundation of his profession. These are, of course, in turn based upon a liberal training in chemistry (general, organic and analytical), botany (systematic and anatomical), and physics. Should we not add to these pharmacology, which, as stated, treats of the physiological effects of drugs?

Pharmacology is taught at the School of Pharmacy in quite as detailed a manner as in many medical colleges, while it purports to give but a general survey of therapeutics. It might be said that a knowledge of physiology is indispensable, but thanks to the excellent instruction given in most high schools where the majority of students in this school have been prepared, they are generally well equipped in this respect. As an evidence of the practical benefit of this training in pharmacology, I may be permitted to mention the fact that former students and graduates continually testify to its importance in the successful practice of pharmacy. In degree of importance they place it on a par with pharmacology and pharmacy proper. It is a stimulant to mental application and forms a sound basis for scientific attainments.

It hardly seems reasonable that the pharmacist should be pardoned for being ignorant of the physiological action of such important drugs as opium and nuxvomica, any more than we should excuse the physician who is unacquainted with the composition of the remedies he prescribes.

Doses and antidotes to poisons then become logical deductions instead of so many abstract facts learned by rote. The pharmacist and physician should supplement each other to a large extent. In order to do this the pharmacist ought to possess a fair acquaintance with the principles of pharmacology, and it is equally important that the physician have a knowledge of drugs and the methods of preparing them.

It will be readily appreciated that the physiological action of a drug determines to some degree its value, and consequently pharmacology may eventually extend the compass of pharmacology so as to be included by it.

WHAT IS PHARMACOLOGY?

From the close of the seventeenth century to the beginning of the nineteenth, separate works upon the scientific study of drugs appeared, but they bore no uniform titles and recognized no distinctive term for that branch of science. The only definite information that we possess regarding the introduction of the expression pharmacology was obtained from the title, "Grundriss der Pharmakognosie des Pflanzenreichs," a work published by Ch. Martius in 1822; and five years later the name received favorable recognition, owing to the lectures delivered at the University of Erlangen by the author of that work.

Martius defined pharmacology as "that branch of general materia medica which treats of the examination of medicinal substances obtained from the three kingdoms of nature, with a view to ascertaining their source and quality, to test them for purity and to determine substitutions and adulterations." After a careful analysis it becomes manifest that the scope of pharmacology, as at present understood, is practically embodied in this definition. Exception might properly be taken to restricting the study to purely medicinal substances, since many drugs for which the pharmacist is held responsible to the people are rarely, if ever, used medicinally. It would be drawing the lines too finely to exclude such substances as logwood and catechu, which are employed mainly in the industrial arts. The same is true of cinnamon, pepper and allspice, whose medicinal applications are insignificant compared with their use as condiments. The words "drugs and medicines" may properly be substituted for "medicinal substances" in the definition given by Martius.

Since the vegetable kingdom supplies by far the greatest number of drugs and medicines, it follows that botany must form an important aid to pharmacology, although, strictly speaking, not a part of it. Systematic botany is of vast importance, since by its principles we are enabled to describe and classify plants with accuracy, and also to form mental pictures of them from their descriptions. It affords a means of determining plant organs, and of distinguishing those that are closely related. The identification of drugs and their adulterants by appearance alone becomes possible in many cases.

In the early days, when the pharmacist powdered his own roots, barks, and herbs, it was a comparatively easy matter for him to determine their genuineness and quality. The means that served then for protection against fraud will not entirely suffice now, since the majority of drugs are furnished ready powdered in all degrees of fineness. The pharmacist must still vouch for the quality of his goods as formerly, and it becomes, therefore, a matter of serious perplexity.

The form, color and properties of plants and plant organs are not constant, as is the case with chemical compounds. Owing to geographical distribution, climatic conditions, the nature and quality of soil, and different methods of collecting and drying, the external features may vary considerably. Recognition by physical characteristics alone, then, is not always practicable or even possible. One may become so familiar with the external

characteristics of certain drug specimens that he can always recognize them among others, provided these features have not been altered in any way; but this kind of knowledge is sadly at fault when the length, diameter, shade of color, and surface markings give to the drug a marked change of appearance. One acquainted with the gross anatomical features could often establish the identity of important drugs at a single glance. For the satisfactory study of crude drugs, then, plant anatomy becomes indispensable.

The credit for having extended the scope of pharmacology to include the microscopic examinations of drugs must be given to Schleiden. The minute structures with their manifold markings are constant factors, and become visible only under the compound microscope. The magnificent photographic reproductions of drug sections in Berg's Atlas, and the excellent free hand drawings of plant structures in Moeller's Pharmakognostischer Atlas, are taken from typically average samples of unquestioned reliability. They are especially valuable for comparison, since they obviate the expense and difficulty in obtaining genuine specimens.

Although the gross features of a drug are destroyed by powdering, the microscopic characteristics remain partially or entirely intact, and the recognition of the whole follows the identification of its parts. Pharmacists can not be urged too much to employ the microscope, which is not only necessary but also an incentive to scientific attainments. It will also in a pecuniary way yield a handsome revenue, for what is to prevent the pharmacist from becoming a public analyst, food inspector, or consulting chemist for some technological enterprise.

The quality of many drugs depends solely upon the amount of active constituents present. Indeed the large manufacturing concerns purchase drugs largely upon assay, leaving out of consideration external features; for it is often the case that general appearances would indicate superior quality when in reality assay proved it to be the contrary. The quantitative determination of active constituents, by gravimetric and volumetric methods, can therefore properly extend into the domain of pharmacology.

Again, the value of a drug is generally based upon the chemical constituents and their qualities. It is not sufficient merely to mention the principles without any reference to their nature, properties, and chemical behavior. That would be as useful to the pharmacist as hundreds of botanical names without any knowledge of the plants they designate. The chemistry of plant constituents must be taken up for consideration by classes and groups. But the botanical and chemical side of pharmacology cannot be satisfactorily taught together in one and the same course. Not that one person would not be competent to teach both, but the classifications being unlike could not conform to each other. They could be treated together if the plants of a certain order or class contained principles in common, but such is rarely the case.

A division into botanical and chemical pharmacology is the only expedient, and ought to be taught by two instructors. Such is the division that is made

in this School of Pharmacy. Since the writer gives instruction in only the botanical side it forms the subject of his discussion.

In conclusion, let it be said that the study of pharmacology will remain incomplete if a general idea of the history, geographical distribution, culture and methods of collecting and drying be not given. Indeed there are a number of instances in which a thorough study of these points becomes of vital importance in determining the nature and quality of the drug. (To be continued.)

(Written for the Era)

THE STATUS OF THE DRUGGIST.

By Albert Henry.

When at a mental distance sufficient to afford us a perspective of just proportion, we contemplate the various occupations followed by the units of the sum of civilized humanity, we cannot fail to be doubly impressed with the truth of the aphorism that "all labor is honorable." Among the various occupations of mankind demanding for their fullest accomplishment intellectual parts above the average and a high moral stamina, few occupy the plane of the druggist. The secrets of nature, the mysteries of the field, the forest and the mine, these form his labors. Each toiler can inspire himself, no matter what his task, by ordering his thoughts to dignify the work that is his; but to my mind the druggist has a deeper reason than many to so conduct himself and his profession that he of himself may uphold the calling in honor. The profession of medicine is so closely knit with the physical well-being of the people that a perversion of its purpose by one of its disciples is productive of the most pernicious consequences to the moral health of a community. America is so very free that good men have no limitation placed upon their efforts to benefit their kind, but that very freedom is also extended to the conscienceless pander to foster vice, to be the hireling of immorality and to glut the desire of the unfortunate inebriate, giving him, in fact, the freedom to evade wise laws for the protection of the weak from the temptation of their lusts.

In an article in this journal some time ago I gave some instances which had come under my observation of the evil effects which resulted to the members of the College of Physicians and Surgeons of London, England, from hiring professional informers to spy upon druggists who prescribed for patients without being duly accredited physicians. Yet there was no doubt that many druggists were in the habit of prescribing—and this practice is as harshly condemned by reputable druggists as it is by the physician—yet in America it is a very common thing, the temptation being the greater with the discovery of new remedies, particularly hypnotics.

The prescribing by druggists is of secondary importance to the practice of selling liquor without a license. In a suburb of Chicago, Englewood, druggists have made a practice of selling to all, and on Sunday to a degree that the church organizations lately began a most determined crusade against the culprits. Five druggists were arrested for selling liquor without a license, the stores of those arrested having degenerated into mere drinking saloons.

What condition of things could be more

depressing to the druggist who honors his profession? Yet we have not far to seek to discern the reason of the evil. One word tells the story—competition. This is the gist of my argument. Competition may be the life of trade, but competition affects the life of the people too closely for it to be permitted to become too fierce in the drug trade. This is very fully realized in Germany, where the druggists must not only be fully qualified, but licenses will only be granted by the state to a certain number in each district, according to population, as prescribed by law. I do not know that any reform can be hoped for in America looking to a limitation of druggists to certain districts, but a movement in that direction would certainly be in the interest of the druggists themselves as well as that of the general public.

At a recent meeting in Chicago of a number of physicians the question of raising the standard of preliminary studies for candidates for the profession of medicine was discussed and reported on favorably. In this there is a suggestion which druggists should regard heedfully. More than ever before should the dispenser of medicine be a student of wide research and withal a man conscientious in his duties to his fellow men. As the mysteries of nature are laid bare by modern enterprise and skill, greater opportunities are placed in the hands of the unscrupulous to pervert blessings to the most ignoble uses. Every druggist who has time to turn his attention from the competition that is making him a hand-to-hand fight for existence, cannot fail to note seriously the growing magnitude of the problem that is looming before the profession. What restriction is desirable? How will it interfere with public convenience? How will it be accomplished, and what is the opposition?

In another paper I hope to take this matter up with some practical illustrations now being collected.

THE MISSION OF PHARMACEUTICAL SCHOOLS.*

By F. B. Power.

The aim of pharmaceutical schools should be to afford a broad and thorough training in the sciences pertaining to pharmacy, or in those branches of natural science, theoretical and applied, upon which the successful practice of pharmacy depends, such as general and pharmaceutical chemistry (including chemical analysis), elementary physics, botany and pharmacognosy. These branches may and should, when possible, be supplemented by such other closely related and useful studies as bacteriology, hygiene, etc. The so-called art of pharmacy, in its generally understood application to pharmaceutical manipulations, can only be properly learned in the daily work of a well-regulated and legitimately conducted pharmacy, and I believe it to be a mistake and an evidence of abnormal conditions when the training of this character is relegated exclusively to the schools.

The primary and most essential requisites of a competent pharmacist must, therefore, be conceded to be such a thorough professional training as to enable him both to prepare and dispense medi-

cines with care and accuracy. Constant care must be exercised to avoid mistakes, and the conscientious pharmacist will always aim to have the assurance that every drug or preparation which he dispenses is authentic, pure and of the proper character and strength. The range of knowledge involved in the faithful execution of these responsible duties, often required to be performed amid distractions of the mind or weariness of the body, is greater than may at first be apparent to a superficial observer. It is, indeed, precisely the constant practical application of the scientific and technical knowledge which it is the mission of schools of pharmacy to impart.

A representation of the character and attainments of pharmaceutical schools, or of the aspects of modern pharmacy, which does not also take into consideration their shortcomings and defects would, moreover, be unduly optimistic. Between the cherished ideals and the conditions which confront us there lie indeed not a few obstacles, but it is believed that these are not insuperable, and that the higher education of the pharmacist would be capable of effecting many of the desired reforms. In a country dominated by a spirit of freedom like our own, this can, perhaps, only be accomplished by the creation of a class of thoroughly educated and specially trained pharmacists, who may be recognized by the public as such, as distinguished from those who can neither desire nor claim professional responsibility, but to whom would be cheerfully relegated the privilege of dealing in patent medicines and all the notions of the modern bazaar, with whatever emoluments such a trade may bring. The greatest need of pharmacy to-day, as of other professions, is men, and by this I mean not only intelligent and educated men, of whom we have a good proportion, but those who have sound and just convictions, which they are fearless to express, and are willing openly to confront the evils which tend to nullify the best educational efforts, or even undermine the very foundations upon which all hopes of progress may rest.

One of the evils to which I refer is the plan adopted by a pharmaceutical college in one of our largest cities reducing the time for technical or scientific study to a period much below that which for years has been considered the minimum requirement, instead of seeking to broaden the requirements and elevate the standard. A student is thus permitted to graduate after two short courses of between three and four months each, receiving a degree which in this university, and in some other universities, it is only thought proper to bestow after a course of study extending through two complete academic years, and for which almost every other college of pharmacy in our land now requires an attendance upon two annual courses of instruction of at least five or six months' duration. That such a short road to an assumed proficiency is alluring to a certain class of students is self-evident, and the motives for such a scheme are also apparent. It is only to be deplored that so many can be led to believe that the mere possession of an easily earned diploma is in any sense commensurate in value with the acquisition of substantial and lasting knowledge. The success of which such an institution may boast must naturally be based, not upon the character and qual-

ity of its students and their work, but upon the numbers that are enrolled.

Another evil to which attention cannot too often be directed is the pernicious influence upon sound education of the small compilations known as "Quiz Compends," "Essentials," published "Lecture Notes," etc., which are designed as short cuts to knowledge, or as aids in "cramming" for the examinations of either state boards or professional schools. By the use of such material, often specially arranged to facilitate memorizing, a student may and often does attain the desired end, which is to slip through an examination with the least possible expenditure of time, effort and study. The knowledge thus acquired is, however, not the true grain, but the chaff, which soon vanishes, leaving him who possessed it empty minded and at a great disadvantage in the competition of life.

In our national and state pharmaceutical associations there is evidently room for improvement in many directions, and in some particulars the most urgent need of reform. With regard to the current literature of American pharmacy, as represented by its various periodicals, it must also be said, with a few notable exceptions, it has by no means reached the highest ethical standard, and in some instances it would be difficult to discern any endeavor to sustain such a standard at all.

The improvement of all these special conditions to which I have referred, no less than the elevation of the general professional standard through the influences of education, may be included within the proper sphere and mission of pharmaceutical schools, and those schools will achieve the highest true success which recognize and fulfill this obligation and trust. It is, however, only when a proper preliminary education is demanded of those who enter the pharmaceutical schools, and when this is supplemented by sound, thorough, scientific training, that pharmacy can be expected to take its rightful place among the professions.

HOMEMADE CELLULOID.—Scientific American gives a formula to make a substance as transparent as pure glass, at the same time very pliable and strong. Dissolve four to eight parts of gun cotton in a mixture of alcohol and ether, in proportion of one of gun cotton to one hundred of the combined liquid, after which add two to ten per cent of castor oil, or any other oil unisicative, and four to ten per cent of Canada balsam. Flow this mixture on to a glass plate and dry in a current of air at 50°. The result is a leaf of hard substance, transparent, nearly unbreakable, and resisting the action of all salts, acids and alkalies.

INCUBATION PERIODS OF INFECTIOUS DISEASES.—The Clinical Society of London has made extensive observations and has compiled the following table showing the number of days of incubation of the infectious diseases named:

	Normal.	Maxi-	Mini-
	num.	num.	num.
Variola	12	14	9
Varicella	14	19	13
Measles	10	14	4
Rubella	18	21	8
Scarlet Fever.....	2	7	1
Influenza	3	5	1
Diphtheria	2	7	2
Typhoid Fever.....	12	23	5
Mumps	19	25	12

*Abstract from an address delivered before the graduating class of the School of Pharmacy of the University of Wisconsin, 1888.—Pharm. Rundschau. (W. Dr.)



[Written for the Era.]

CRYPTOGAMS.

A Short Descriptive and Analytical Scheme.
By L. Sollman.

Any one wishing to make original investigations in a field easy of access and fruitful of results can find much of interest in the cryptogams. Whilst the higher families, such as ferns and mosses, are fairly well known, this is not the case with the smaller fungi, algae, bacilli, etc.

The following scheme is by no means considered final. It has, however, the advantage that it covers and clears a field the view of which is certainly hazy to most botanists and naturalists.

By referring to the illustrations under the respective figures (e. c. Filices, Fig. I), there may be found a graphic explanation of technical terms.

CRYPTOGAMS,—plants with or without chlorophyl, without anthers or pistils, propagating by spores or cell division.

1. Pteridophytes: Plants with woody fibers, first generation spore or spores growing into antheridia and archegonia on a separate plant (proto plant).

(A) Antheridia and archegonia arising from one kind of spore.

Equisetaceae.

Filices. Fig. I.

Ophloglossae.

Lycopodiaceae.

(B) Antheridia and archegonia arising from two kind of spores.

Sellaginellaceae.

Marsillaceae.

Salvinaceae.

2. Eryophytes: Plants with cellular tissue only, both archegonia and antheridia growing on the original plant.

(A) Propagating by antheridia and archegonia only.

1. Thallose, capsules opening irregularly, containing spores mingled with elaters. Hepaticae or Liverworts. Fig. II. F. (A detailed analysis of cryptogams up to this class may be found in Gray's Manual of Botany.)

2. Never thallose, capsules opening by a lid and containing spores only.

Musci, Fig. II.

Mosses.

(B) Growing in stalk and leaflike plants (composed of tubular cells at the joints) antheridia and archegonia producing oospores.

Characeae, Fig. III.

(C) Producing (besides antheridia and archegonia) by subdivision so-called tetraspores.

Tetrasporaeae. Irish Moss, Fig. IV.

3. Thallophytes: Cellular plants, mostly without chlorophyl, cells changing directly into spores without the intervention of much specialized organs.

(A) Thallus with or without chlorophyl, propagation by zoospores, i. e., an ordinary cell, without fructification, produces ciliated spores capable of germinating.

Zoosporeae, Fig. V.

(B) Thallus various shaped, composed of single cells. Propagation by zoospores, i. e., two cells of the same kind touch and by segmentation form between them a new cell which gives rise to zoospores ready to germinate.

Zygosporaeae, Figs. VI. and VII.

Mucoreae, Diatoms.

(C) Spores, generally four, produced on a basidium, the latter resting on a hymenium.—Hymenomyces. Fig. XI. Many edible mushrooms.

(D) Basidia contained in a sac (peridium) by the bursting of which they are set free.—Gasteromyces. Fig. XI.

(E) Spores are formed inside of a cell; the peridium in form of a tuber. This is transversed by many channeled veins, in the walls of which are embedded the cell tubes. Cells are set free by the rotting of the peridium.—Tuberaceae. Fig. XIII. Truffles.

(F) Spore tubes and paraphyses (hair cells) contained on the inside wall of a bottle-shaped cavity (perithecium). Spore tubes contain eight spores which issue from the mouth of the perithecium. Some, besides, possess free basidia, called conidia, other bags containing basidia. When the spores of the latter are fertile they are called "spermagonia," when sterile, "pyknidia." Pyrenomyces. Fig. X. Ergot.

(G) Spores, etc., like in the previous class, but spore tubes borne on a disc, instead of a perithecium.—Discomycetes.

(H) Spores of two kinds found on basidia: 1. Uredospores ready to germinate at once; 2. Teleutospores after a winter's rest. Mycelium formed on inside the plant on which it feeds. Spores on ripening break through the epidermis.—Uridineae. Fig. XV. Rust.

(I) Mycelium contained inside the plant, on which it is parasitic. Spores set free by the breaking up of the plant.—Ustilagineae.

(K) A slimy, apparently structureless protoplasmic mass, raising on its surface membranous bags, which break up into globular cells.—Myxomyces.

(L) Structureless cells multiplying by spreading.—Cryptococcae. Fig. XIV. Yeast.

(M) Multiplying by subdivision, one celled.—Schizophytae. Fig. VIII. Bacteria.

4. Plants with a double structure, one being parasitic and in the organs called apothecia resembling closely the pyrenomyces, the other containing chlorophyl, which produces and reproduces by gonidia.—Lichenes. Fig. IX. Iceland moss.

DESCRIPTION OF THE PLATES.

Fig. I.—Filices.

- A. Part of a frond showing sori; No. 1.
- B. Crosscut of sorus, showing indusium. No. 1. Sporangia No. 2.
- C. Sporangium enlarged, discharging spores which grow into
- D. Protothallus, with rootlets showing archegonium No. 1., antheridia No. 2.
- E. Antheridium spore enlarged.
- F. Embryo in archegonium, from which germinates.
- G. Young fern plant.

Fig. II.—Musci.

- A. A female stalk with a capsule covered by cap.
- B. Rippe capsule showing peristome. No. 1.
- C. Male stalk with antheridia. No. 1.
- D. Antheridium with leaflets 1; paraphyses 2; antheridia 3.

E. Capsule of muscus with lid. No. 1.

F. Capsule of hepatica, valved, with discharged spores No. 1. Elaters No. 2.

Fig. III.—Characeae.

- A. Stalk.
- B. One knot of same enlarged, showing antheridium 1; sporangium 2.
- C. Sporangium enlarged.

Fig. IV.—Tetrasporaeae. Trichogynium No. 1, fructified by antheridium No. 2.

Fig. V.—Zoosporeae. Self-fertilized cells, containing spores No. 1; ciliated zoospores No. 2.

Figs. VI, VII.—Zygosporaeae. Showing three styles of copulation. A. spirogyra; B. rhizopoa; C. desmidia.

Fig. VIII.—Schizophyta.

- A. Bacteria.
- B. Bacilli.
- C. and D. Spirilla.

Fig. IX.—Lichenes.

- A. Thallus of lichen with apothecia 1.
- B. Crosscut of apothecium gonidium layer No. 1. Disc. No. 2.
- C. Part of disc enlarged. Spore tubes No. 1. Paraphyses No. 2.
- D. Gonidium layer, enlarged gonidia No. 1.

Fig. X.—Pyrenomyces. Claviceps purpurea.

- A. Sound ovary of rye.
- B. Changed into conidia bearing stroma 1.
- C. Crosscut of stroma, showing conidia discharging spores.
- D. Stroma changing at bottom into sclerotium.
- E. Sclerotium, with remains of stroma 1.
- F. Sclerotium sprouting into a sporangium 1.
- G. Crosscut of sporangium enlarged, showing the perithecia.
- H. Crosscut of the perithecium, showing spore tubes.

1. Spore tube discharging spores.

Fig. XI.—Hymenium of an agaricus.

- A. 1, cap; 2, lamellae; 3, ring; 4, stalk; 5, valva; 6, root; 7, mycelium.
- B. Crosscut of a lamella, showing: A, basidia; B, spores.

Fig. XII.—Gasteromyces.

- A. Natural size. Bovista forming a peridium.
- B. Fibre contained in same, forming the base for the
- C. Basidia and spores.

Fig. XIII.—Tuberaceae.

- A. Crosscut of a truffle, showing the veins 1.
- B. Crosscut of a vein whose walls contain the spore tubes 1.

Fig. XIV.—Yeast plant, sprouting.

Fig. XV.—Uredineae, grain rust.

- A. Teleutospores sprouting into a conidia.
- B. Mycelium producing teleutospores No. 1, uredospores No. 2.

WEAK SPIRIT OF NITROUS ETHER
—Some English chemists seem to have the same bad habits that a few American pharmacists have, in that they keep two grades of articles for sale. A public analyst got after one of the former recently and found his spirit of nitrous ether very deficient in strength. The pharmacist said that if he had known that the article was to be subjected to analysis he would have responded to the demand for a sample with the contents of another bottle.



[Written for the Era.]

GINSENG.

Panax ginseng, Aralia quinquefolia.
Chinese Man Root.

By George Stanton, Summit Station, N. Y.

There is no plant or root known to the medical faculty of more commercial value to the American people than ginseng, while its medicinal value is rated the lowest of anything in *materia medica* by the profession in America and Europe. But for the foreign demand this root would not be worth five cents a pound in this country. In 1890 the writer shipped a barrel of ginseng (60 pounds) to New York and received in return a check for \$25.

Ginseng was first discovered in Canada in 1716. The export trade commenced in 1718 and soon developed an extensive business. In 1835 the shipments of the root from the United States amounted to 407,067 pounds, valued at \$39,303, less than 25 cents a pound. In 1858 and '59 the ginseng trade in one county in Wisconsin is reported to have reached the sum of \$120,000. Immense quantities have been exported from Minnesota. The exportation of ginseng from this country for twenty years prior to 1884 averaged about 400,000 pounds a year. During ten years, 1882-1891, the exportation from the United States amounted to 3,888,206 pounds, value \$7,773,996. The above figures give some idea of the commercial value of this root in this country.

Ginseng is found in our hardwood forests throughout most of the states east of the Rocky Mountains, but it is fast becoming exhausted in this country, reports coming from all sections stating that it is becoming extinct. Ginseng is also native in China, Tartary and Corea, but is nearly exhausted in these countries. It is known to have been used as medicine in China for at least five hundred years. Williams, in his "Middle Kingdom," second edition, says, on page 967: "Ginseng is found wild in the forests of Manchuria, where it is collected by detachments of soldiers detailed for this purpose; these regions are regarded as Imperial preserves, and the medicine is held as a government monopoly. The importation of the American root does not interfere to a serious degree with the Imperial sales, as the Chinese are

fully convinced that their own plant is far superior." Ten thousand soldiers have been employed gathering the root at one time; each of these collectors, in the year 1709, was bound to furnish two ounces free, the rest he could sell to the emperor for its weight in silver. Roots having the form of the human body could be sold for their weight in gold. Single roots of this form often bring from \$30 to \$400. The "kilt-edged" ginseng of Corea and Manchuria often sells in China for \$700 and \$800 a pound. The following item from a trade paper, May 1st, 1889, is of interest in this connection: "An example of the cost of the medicinal root ginseng is afforded by a recent *Pekin Gazette*, which contains a report from the military governor of Kirin, in Manchuria, stating that he has forwarded for the use of the Emperor by special messenger eight large and sixteen small ginsengs, weighing altogether 9.4 ounces. The total cost is given at 1,560 taels, or about \$400, being at the rate of about 42¢ an ounce. What is the magic charm about this root that commands such price? Panacea for all the ills to which human flesh is heir, cure-all for mind and body. The Chinese do not seem to base their estimate of value upon the chemical properties of the root, but reason in this wise: That a root and plant which attains such great age and so often resemble the form of the human body must possess supernatural powers, and that they are capable of imparting their virtues to the human body; hence, if they eat such roots, they will restore vigor, ward off disease and prolong life to extreme old age. Ginseng is also regarded as a cure for barrenness and tending to produce male children,

the greatest blessing the Chinese father can hope for. The Chinese doctors assert that it gives ready relief in extreme fatigue, renders respiration easy, strengthens the stomach and gives vigorous tone of body even in extreme old age."

It has been asserted that the Chinese claim that the forest home of the ginseng is guarded by the lion, the tiger and the rattlesnake, and that the roots utter groans and protestations when being dug, and have power to crawl back into the ground. It is supposed by many that ginseng is narcotic in its effects and creates an abnormal appetite. This is not correct; it is neither narcotic or stimulant, but a mild tonic. In Japan and China the roots are subjected to a process of clarifying, which consists in boiling them five minutes in a liquid especially prepared. To ten gallons of water is added $\frac{2}{3}$ ounce of clarified ginseng, $3\frac{1}{2}$ ounces of licorice root and $3\frac{1}{2}$ ounces of shai-shin (a drug). When the water becomes brownish the residue of these substances is removed and about one quart of alcohol is added. The roots, after being carefully washed and trimmed, are graded according to size and quality into from five to seven grades and placed upside down in bamboo baskets containing about $8\frac{1}{2}$ pounds. The baskets, commencing with the lower grades, are placed for five minutes in the liquid, which is boiling, then dipped in cold water and dried, either in open air or kiln dried according to weather. After ten baskets of roots have been treated, the liquid should be renewed. I have a sample of ginseng cultivated in Japan and clarified. The roots are about two inches long. They are old and worm-eaten, yellowish, candied, and crumbly when cut. These samples were sent me by Mr. T. A. Bronson, of New York. He writes me that they were imported from Japan for the purpose of mixing with our native roots.

As a botanical study, ginseng is a very interesting plant. It is generally described as fifteen-leaved. This is not correct. It is found with all the way from 3 to 25 leaves, according to age and vigor of root. The plant makes its appearance in northern New York about the first of May. It comes out of the ground entire in all its parts, foliage, seed-head and buds. The plant develops quite rapidly until about the first of July, when it reaches maturity and the flowers appear. They are small, with green center and five small white petals. The blossom is scarcely visible to the naked eye, but under the magnifying glass is very interesting. The flowers are soon followed by green berries, which ripen from the 15th of August to the 15th of September, and when ripe are bright scarlet with soft, pulpy flesh, taste pleasant, sweetish, bitter. Each berry contains from one to three large, rough, white, hard-shelled seeds. The berries range in size from a small pea to a medium bean, round, oval, or triangular in shape, according to the number of seeds. Soon after ripening the berries fall to the ground and are covered by the leaves of the forest. After about eighteen months they send up a small, three-leaved plant, producing a root the first season but little larger than a good, plump oat. It is several years before the root develops a seed-bearing plant. Ginseng is of slow growth and attains great age; roots are often found thirty to forty and even fifty years old.

The age is indicated by the notches on the neck of the root formed by each year's stalk, each year adding to the length of the neck, very old roots having necks from five to six inches long. Old roots are not always large, 15 or 20 years often developing much larger roots than some that are 40 or 50 years of age. The Chinese and Indian name, "Man root," is not inappropriate, for like man when old it loses its vigor and vitality. I have often heard it claimed by ginseng hunters that roots had been found weighing 20 ounces and even more. The largest roots I have ever seen weighed 6½ ounces green. Two to three ounces are considered large roots.

In gathering for market, care should be taken not to injure the roots, as the larger, more perfect and entire, the greater the value. They should be thoroughly washed as soon as practicable, with brush or broom, and dried either in sunshine or by moderate heat, but care must be taken not to overheat. It should not be dug until after the seed has ripened, or about the first of September. The increase in price and demand during the past few years, with the decrease in supply, have naturally called out many inquiries in regard to the cultivation of this valuable root. Many unsuccessful efforts have been made to develop its culture in this country, until the prevailing impression is that it cannot be done. The cause of failure, no doubt, was owing to the fact that the parties making the trial were not familiar with the natural habits and requirements of the plant. My own experience in this line the first year was very unsatisfactory. The seeds did not germinate and the plants, from about 200 roots set in autumn of 1886 made a very poor showing. During the season of 1887 the outlook was so very discouraging that I abandoned the project and pronounced it a failure, but in 1888 my plants made fair growth and gave better promise of success. I then made a careful study of the habits and requirements of the plant. The experience thus gained has enabled me to so improve my methods of culture that success is now an assured fact. A few figures will show the possibilities in ginseng culture.

The combined product of three beds, 3x16 feet each, taken up October, 1893, was 1,074 roots, weighing 73 pounds. From these I sorted out 833 roots, 20 pounds, for transplanting, again leaving 53 pounds of clean, washed roots to be dried for market, giving 17 pounds dry, which sold for \$4 per pound. It will be observed that the stock had only been decreased 241 roots; the 833 roots taken out for replanting were much larger than the roots with which the beds were originally stocked. They had been under cultivation, one bed five years, the others four years, the seed produced during that time being worth at least \$40.

I have in my garden at the present time (February, 1894) 32 beds, 3x16, stocked with roots and seeds. Also over 30,000 seeds in forest nurseries beds, and the past season's crop of seeds, about 100,000, packed in loam in condition to promote germination, ready to be sown the coming season. My plants the past season were a marvel of vigor and beauty and were the admiration of all who saw them. I had hundreds of plants with 20 and 25, and some with 30 leaves; by this I mean plants with four, five and six leaf stems

or branches, each bearing from five to seven leaflets, many of these plants standing 30 inches high and spreading 30 inches in diameter, with seed-heads from 1 to 2½ inches in diameter. I am often asked how long it will take to produce roots from seed large enough to be profitable for market. Two hundred and thirty-three seedlings of three seasons' growth taken up last October weighed 34 pounds, three or four years additional growth should give splendid results and produce roots averaging over one ounce each. The best way to get started in ginseng culture is to transplant the wild roots; in this way one soon gets to producing seed in quantity and the business can be developed quite rapidly when once fairly started. The seed is expensive and likely to remain so. It cannot be handled in bulk like other seed, and must not be allowed to get dry. They require 18 months to germinate. Ginseng can be cultivated in garden, orchard or forest. It is to be regretted that the American people are allowing this plant to become extinct in this country without making a greater effort to develop its culture. But little land or capital is required in starting this industry. One-quarter of an acre is ample for a valuable ginseng farm. One hundred dollars will do more toward developing this industry in the near future while the wild roots can be procured than \$500 will do in ten years from now. Time, with patient and persistent effort are the essential requirements. There is likely to be a demand for all that can be produced. I do not apprehend any possibility of an over-production by cultivation for many years to come. My idea, briefly stated, is this: Forest culture on an extensive scale, proper location, thorough preparation of ground, liberal fertilizing, cottage to command view of plantation, guard, then push for all it is worth; there is money in it.

PHARMACY.

TANNAL-ALUMINIUM TANNATE.—Application like that of salumini.—Riedel.
THE CENTIGRADE THERMOMETER has been adopted by Germany in place of the Reaumur, heretofore employed.

CINCHONA was introduced into Java by Dr. Hasskarl, a German-Dutch botanist, whose death was recently announced.

ZINCI-BORICUM.—Prepared by mixing solution of 5 parts zinc sulphate in 30 parts water, with solution of 4 parts borax in 100 parts of water.

CAMPHOID.—Wm. Martindale says the formula for this article should be: Camphor, 20 parts; soluble gun cotton, 1 part; absolute alcohol, 20 parts.

TINCTURE OF RHUBARB WITHOUT SAFFRON.—Two grocers in England have been fined for selling this character of preparation.

FOOD AND DRUG ADULTERATION. During 1893, in Massachusetts, 96 complaints were entered for violation of the acts relating to food and drug inspection, and 92 convictions were obtained.

SEWER AIR contains no micro-organisms which are not found in ordinary air, says Chem. & Drug., quoting Mr. Parry Lows, a bacteriologist working for the London County Council, so that if sewer air is infectious, that character must be due to something which is not vital.

NICKEL ORE has been discovered in great abundance in Germany in an old mine which has been worked for lead and zinc from time to time. It is now proposed to extract nickel from the veins.

ANTISEPTIC SANATIVE POWDER consists of 34 per cent alum and 64 per cent zinc sulphate, says Ch. & Dr. It is heralded as a new discovery of Dr. Koch, and has been introduced in the United States.

DENTAL ANAESTHETIC.—The Dental Practitioner offers this: Atropia, one-tenth grain; strophanthin, one-fifth grain; cocaine hydrochlorate, fifty grains; carbolic acid, ten grains; oil of cloves, three minims; distilled water, one ounce.

KOLA NUTS, according to a recent German patent, are to be treated with hydrogen peroxide in order to remove the bitter taste. The process is not described, hence no details of the action of the peroxide on the constituents of the drug can be given.

ADULTERATED OTTO OF ROSE will no longer be tolerated in Bulgaria, where enactments prohibiting the importation of geranium oil have recently been promulgated. Other adulterants, as cotton-seed oil, laudanum and cocculus indicus, are included in the prohibition.

BEECHNUT OIL has for some time been produced in Germany and it is now proposed to find employment for it as a table oil. The beechnut contains a little over 22 per cent of oil, which is easily extracted by pressure, and the industry promises to prove profitable.

METHYLATED TINCTURES.—An English pharmacist pleaded guilty to the charge of having on his premises tincture of opium, compound tincture of benzoin and tincture of quillaia in the preparation of which methylated spirit had been used.

GLUCOSE REACTION.—If 3 to 4 c. c. of a sugar solution are heated for one minute with 0.12 gm. iodic acid and 0.2 to 0.4 gm. sodium hydrate, the mixture cooled, acidified with dilute hydrochloric acid and cautiously covered with a layer of ammonia, a dark precipitate of iodide of nitrogen is formed.

VANILLIN is a constituent of cloves, say Jorissen & Hairs, and may be extracted from them with ether. The ether solution is then shaken with a solution of acid sodium sulphite, the latter separated, decomposed with mineral acid and agitated with ether. Evaporation of this ethereal solution leaves a white, crystalline residue of vanillin.

A TOLUOL THERMOMETER is the subject of a recent German patent, it being believed that toluol has certain advantages over both mercury and alcohol. It may be colored with aniline, is cheaper than mercury, its manufacture is less objectionable, and it possesses five times the power of expansion of mercury. It freezes at 50° C. and boils at 170° C.

DESTRUCTION OF GARBAGE.—There are now fifty-five towns and cities in England which destroy their garbage and solid refuse by burning, and 570 furnaces are employed for this purpose. In many cases the heat from these furnaces is used to produce steam, and the power is employed in pumping water and running electric light and power plants, and other purposes.

NEW REMEDIES.

CEIHERID is a glucoside obtained from *Cerbera yecothi*. It is a remedy for heart troubles.

CORONILLIN is a body found in *Coronilla scorpioides*. This is a yellow powder, soluble in water and alcohol.

DIAPHNOL is the aseptol of the quinoline series. Its use is quite similar to that of aseptol, and its chemical name is *o*-oxyquinoline-*m*-sulphonic acid.

OUABAIN is a glucoside from the bark and wood of *Acoceantha defersii*, and is now being manufactured commercially. It is a bitter yellow powder, very hygroscopic and giving fluorescent solutions.

SOLPHINOL is now described as a new antiseptic. It appears to be a mixture of borax, boracic acid and acid sulphites of the alkalis. This is scarcely worthy the name of a new remedy. (Br. and Col. Dr.)

AESCORCIN is a derivative of Aesculetin, a decomposition product of Aesculin, the glucoside of the horse chestnut. It is proposed as a remedy for diseases of the cornea. A 10 per cent solution in distilled water is prepared, and a drop or two poured into the eye.

EURYBIN is a glucoside obtained from *Eurybia moschata*, one of the Compositae of New Zealand. It is an amorphous, slightly yellow, bitter powder, soluble in water and alcohol. Neutral acetate of lead gives no precipitate with it, whilst basic acetate does so. Tannin also precipitates it. It does not reduce Fehling's solution until hydrolysed, when it yields a resin and a sugar.

MALACINE is proposed as an anti-rheumatic by A. Jaquet (Sem. Med.), who says it is well borne and has no unpleasant after effects. In chemical structure it is a salicylic derivative of phenacetine, occurring in small, pale yellow crystals, insoluble in water but dissolving in hot alcohol. It is easily decomposed by the mineral acids, even in weak solution, into phenacetine and salicylic aldehyde.

LYCETOL, the last synthetic remedy on the market is a derivative of piperazine, Bayer & Co. have prepared dimethyl-piperazine in a pure state, and have put forward the tartrate on the market under the name of Lycetol. The constitution of this body is similar to that of piperazine and may be called dipropylene-diamide, although this name is scarcely applicable to a compound of this nature. Its use will be similar to that of piperazine.

BISMUTH PHENATES.—Among a group of antiseptic combinations of bismuth, the following are more important: Phenol bismuth, cresol bismuth, tribromophenol bismuth, chlorphenol bismuth, resorcin bismuth, and betanaphthol bismuth. These form neutral, inodorous, tasteless powders of red, yellow and white colors; insoluble in water. Among these, the naphthol bismuth has found application in the treatment of the first stages of cholera, dose 2 gms. In the intestines it is split up into beta-naphthol, which is eliminated through the kidneys, and bismuth oxide. The tribromophenol bismuth is recommended as an intestinal antiseptic; forms a yellow-colored, neutral, insoluble powder, containing 50 per cent tribromophenol; said to be almost a specific against cholera bacilli. Dose, 5 to 7 gms.

THYMACETIN.—A crystalline solid; derived from thymol, in which an ethyl group is substituted for the H of hydroxyl, and an acetylated amido group for an H in the nucleus. Employed as an anti-neuralgic.

SODIUM SULFOCAFFEATE-NASHTOL.—Since the introduction of the sulpho group decreases the medicinal potency in phenol groups, the same was tried here with success. Bitter, crystalline, slightly soluble in cold water, non-toxic, does not irritate the stomach. Solutions containing more than 5 per cent are not stable. Besides above, soda, lithium and strontium salts are prepared. A powerful diuretic. Dose, 1 gm. in capsule.

THIURET.— $C_4H_7N_2S_2$ —A sulphurated antiseptic. Oxidation product of phenyl-dithioburet. Inodorous crystalline powder, insoluble in water; soluble in alcohol and ether. Has the property of giving up sulphur readily (*statu nascenti*) upon which its disinfectant properties depend. As best adapted salt of this basic thiuret, is the para-phenylsulfonate, a yellow, crystalline, inodorous powder, which can be employed in solution as well as dry antiseptic.

LYSOL is prepared from the fraction of tar oil which boils between 190° and 290° C. by dissolving it in fat and saponifying with the aid of alcohol. It is a brown, oily-looking, clear liquid, with a feebly creosote odor, and contains 50 per cent of cresols. It forms clear mixtures at once, in every proportion and at all temperatures, with water. It possesses the properties of a saponaceous solution in addition to its germicidal power. It is non-toxic, and in this respect possesses certain

DULCIN OR SUCROL.—Para-phenetol-carbamide. It is closely related to urea, in which the H in one of the amido groups is replaced by the phenetidine residue. A white crystal solid; soluble in 800 parts cold and 50 of hot water and 25 of alcohol. Because of its intense sweet taste, being 200 times that of cane sugar, offers a substitute for this carbohydrate. In large doses does not produce injurious effects; and in long continued use does not create the dislike usually caused by saccharin.

SALICYLACETOL.—The decomposition of salol in the system into salicylic acid and phenol, the toxic effects of the latter being often manifested, led to the introduction of salophen; this splits up into salicylic acid and amido-phenol. This same view led to the combination of salicylic acid with a non-poisonous body, acetone. It is made by the reaction between mono-chlor-acetone and sodium salicylate. Forms crystalline needles, sparingly soluble in water. Employed in the treatment of summer diarrhoea. Dose, 2 to 3 gms. daily.

FORMALIN.—Formic aldehyde, being a well-known powerful anti-bacterial, has led to its introduction by the Schering factory; is an aqueous 40 per cent solution. Owing to the volatility of formic aldehyde, it is given off at ordinary temperature. In dilution of 1 to 20,000, it destroys the anthrax bacillus in one hour, excelling all disinfectants and equal to sublimate; preferred to this because of its non-poisonous properties. Valuable for disinfecting instruments, sponges, sick-rooms, etc., a 1 per cent solution is best adapted. Employed in the form of dry powder, containing 20 per cent; the absorbent material being infusorial earth.

FORMULARY
AND
QUESTION BOX.

The object of this department is to furnish our subscribers with reliable and tried formulae and to discuss questions relating to practical pharmacy, prescription work, dispensing difficulties, etc.

Requests for information are not acknowledged by mail and ANONYMOUS COMMUNICATIONS RECEIVE NO ATTENTION. To insure answer in the next number, queries should be in our hands *ten days* prior to the date of issue.

1126. Syrup Hydrulic Acid, a Correction.

Mr. M. H. Koons, Allentown, Pa., calls our attention to a typographical error in the formula under the above title given in the May 1, 1893, Era, page 397. As it reads the sodium hypophosphite and potassium iodide are directed to be dissolved in 62 drams of water. It should read 6 drams, instead of 62 drams.

6024. Emulsion Cod Liver Oil With Hypophosphites.

(A. K.) See reply to query 5995, January 15, 1894, Era, page 61.

6025. Aphrodisiac Formulae.

(C. & H.) We cannot answer queries of this character and would advise you to consult a reputable physician.

6026. Ohio Board of Pharmacy.

(W. M. H.) The Ohio Board of Pharmacy does not send us a list of those who successfully pass its examinations. Write the secretary. He will perhaps be willing to furnish you the information.

6027. Best Solvent for Papoid.

(N. Y. C. P.) Papoid is a trade-marked preparation, and we would suggest that you write the manufacturers, who will doubtless be glad to furnish you information regarding its solubility in different solvents, and the best method for its administration. It is probably soluble in either water or glycerine, or both, as most of the mixtures we have seen prescribed contain one or both of these solvents.

6028. Perfume Extract.

(W. H. F.) A most careful search fails to reveal a formula for the odor you name. Farther, the name, we believe, is trade-marked, which would of course prevent you or anyone else using it as a title for a similar article. As to duplicating the odor, we can do nothing other than to suggest that you make a few experiments calling into requisition your sense of smell, a most important factor in the determination and simulation of any particular perfume.

6029. Tar Marking Ink.

(Subscriber.) Dilute 30 parts of coal tar with the same volume of benzine, and rub in thoroughly 3 parts of ivory black and 1 part of Prussian blue. The consistency may be varied by adding more or less benzine. This ink is intended to be used with a hand stamp and is the only "tar ink" with which we are familiar.

6030. Elixir of Pyrophosphate of Iron, Quinine and Strychnine.

(A. R.) asks whether a reaction takes place in preparing the above elixir with citric acid and ammonia. What salt is found in the finished elixir? If our correspondent will kindly furnish the pro-

cess or formula he uses in manufacturing this elixir, we will endeavor to answer him. As it now stands his query is rather obscurely stated.

6031. Crystallization of Sugar in Syrup of Tolu.

(N. Y. C. P.) asks what causes crystallization of sugar in syrup of tolu made after the formula given in the U. S. P. of 1890. We think his trouble arises from a supersaturation of the aqueous solution of tolu with sugar. We cannot account for it in any other way, unless it be that he has allowed some or all of the alcohol in which he dissolved the balsam of tolu, to remain. If this be the case, then the quantity of sugar must be reduced, as water mixed with alcohol will not dissolve as much sugar as will water alone. If the alcohol be allowed to remain, the quantity of sugar in the official formula should be reduced from 850 to 800 grams.

6032. Tincture of Orange in Wine, Beef and Iron.

(J. W. H.) asks which he shall use in the preparation of Wine, Beef and Iron, the tincture of bitter orange or the tincture of sweet orange. He uses formula No. 233, Era Formulary, which does not specify. The difference in the finished product would be very trifling indeed, whichever of the tinctures be used. It may be left entirely to the taste and judgment of the operator. The majority of pharmacists probably prefer the tincture of sweet orange peel, as that is made from the rind of fresh oranges, contains a larger proportion of the volatile oil, and has a more agreeable flavor than that made from the dry rind of the bitter orange.

6033. Prescription Query.

(G. E.) asks how to compound the following:

- R
Zinc oxide 2 drams.
Zinc carbonate, precipitated 1 dram.
Petrolatum ½ ounce.
Solution of lime, enough to make 4 ounces.

- R
Carbolic acid 2 fl. drams.
Extract opium 2 drams.
Olive oil ½ pint.

We would like to hear from our readers.

6034. Pile Ointment.

- (J. M.)
(1.) Powdered opium..... 20 grains.
Extract belladonna 10 grains.
Cold cream 1 ounce.
(2.) Powdered galls..... 2 drams.
Powdered opium 30 grains.
Purified lard 1 ounce.
(3.) Tannin 20 grains.
Cocaine hydrochlorate..... 20 grains.
Morphine sulphate 5 grains.
Atropine sulphate 4 grains.
Petrolatum, soft 1 ounce.
Perfume with otto of rose.

6035. Vegetable Compound.

(J. R. W.) It is said that this preparation closely resembles an infusion or decoction of gnapthaliu polycephalum or life everlasting. An exchange is authority for the following widely differing formula:

- Cramp bark..... 1 pound.
Partridge berry vln..... 1 pound.
Poplar bark..... ½ pound.

- Unicorn root ½ pound.
Cassia ½ pound.
Beth root..... 6 ounces.
Sugar 6 pounds.
Alcohol ½ gallon.
Water, a sufficient quantity.

Reduce the first six ingredients to No. 40 powder, add boiling water enough to cover, let stand till cold, and then percolate with water until 2½ gallons of liquid are obtained. To this add the sugar, bring to a boil, remove from the fire, and, when cold, add the alcohol.

6036. Hair Tonic.

- (G. F. L.) Try the following:
Cologne 2 fl. ounces.
Quinine sulphate..... 15 grains.
Tincture cantharides..... 3 fl. drams.
Borax 1 dram.
Ammonia water..... 1 fl. dram.
Glycerine 3 fl. ounces.
Tincture cudbear enough to color.
Alcohol 6 fl. ounces.
Water enough to make. 16 fl. ounces.
(2.) Powdered borax..... 2 drams.
Tincture cantharides..... ½ fl. ounce.
Ammonia water..... 1 fl. dram.
Cologne 1 fl. ounce.
Glycerine 2 fl. ounces.
Alcohol 3 fl. ounces.
Sage infusion enough to make 16 fl. ounces.

6037. Mixture of Chloral and Potassium Bromide.

(N. Y. C. P.) See reply to query No. 917 in the December 15, 1892, Era, page 366. Besides referring you to the Compound Mixture of Chloral and Potassium Bromide of the National Formulary, which, by the way, is the best formula we know of, the following, sometimes dispensed under the above title, are quoted:

- (1.)
Potassium bromide..... 4 drams.
Chloral hydrate..... 4 drams.
Extract cannabis Indica. 16 grains.
Extract henbane..... 16 grains.
Glycerine 2 ounces.
Oil neroli..... 10 drops.
Alcohol 1 fl. dram.
Caramel, sufficient.
Distilled water enough to make 1 pint.

(2.) This one is taken from the Pharmacopoeia of the Edinburgh Royal Infirmary:

- Potassium bromide..... 6 drams.
Chloral hydrate..... 6 drams.
Tincture of hyoscyamus. 3 drams.
Tincture of cannabis Indica 1½ drams.
Lemon syrup..... 3 ounces.
Distilled water, up to..... 6 ounces.

6038. Resorcin and Ammonium Carbonate, in a Prescription.

(A. S. G.) asks the cause of the color change in this prescription:
Ammonium carbonate..... 1 dram.
Resorcin 2 drams.
Cherry laurel water, enough to make..... 3 ounces.

He says he dispensed the prescription as a clear, colorless solution; six hours afterward it was brought back, having turned a beautiful dark blue color. Experimenting, he found that the mixture soon began to assume a greenish tinge, finally changing to a blue color. The color change observed is due to the action of ammonium carbonate upon resorcin. The combination of resorcin with various reagents produces characteristic

color changes by which its identity may be established. Thus, if to a solution of resorcin be added a few drops of ferric chloride, the liquid assumes a bluish-violet color. On heating resorcin with tartaric and sulphuric acids, a thick carmine liquid is formed which becomes pale yellow when diluted with water. Chlorinated lime colors its solutions violet, while, as you have observed, its solution in ammonia when exposed to the air, goes through the various changes of color from rose red and brown to green and blue. See also other reactions for resorcin given in the Pharmacopoeia.

6039. Acetic Ether and Oil of Lemon Balm in Extract of Lemon.

(J. S.) To what extent acetic ether is used in the manufacture of this particular flavoring extract we cannot say. We do know, however, that it is directed to be added, and is one of the ingredients of many so-called artificial flavoring extracts. It possesses a fruity, ethereal and agreeable odor, and is used for the purpose of imparting this characteristic to the extract. The true oil of lemon balm or oil of melissa, owing to the very small yield, is very expensive and is therefore not used in flavoring extracts. The only use to which it is put is for the preparation of some perfumes which owe their peculiar qualities to its strong odor. This oil, according to Askinson, is sometimes confounded with the spurious oil of melissa, variously known in the trade under the names of lemon grass oil, Indian verbena oil, or Indian melissa oil, or simply oil of verbena or oil of melissa. Constructing a formula upon the lines you suggest, using oil of lemon grass, we append the following:

- Oil of lemon..... 3 fl. ounces.
Oil of lemon grass, fresh 1 fl. dram.
Lemon peel (fresh grated) from 12 lemons.
Acetic ether..... ¼ fl. ounce.
Alcohol 7 pints.
Water 1 pint.

Mix and macerate for seven days. See also various other formulas in the Era Formulary, page 397.

6040. Paste Mucilage.

(W. P. C.) Try one of the following:

- (1.)
Flour paste..... 100 parts.
Alum water..... 3 parts.
Solution of dextrine..... 5 parts.

- (2.)
Rye flour..... 4 ounces.
Powdered alum..... ½ ounce.
Rub to a smooth paste with 8 ounces of cold water, strain through a cheese cloth and pour into 1 pint of boiling water. Continue heat until thickened to suit. When nearly cold add—

- Glycerine 1 ounce.
Oil of cloves..... 30 drops.

(3.) Rice Paste may be prepared by mixing rice flour and water, which is then heated to the boiling point until the required consistency is obtained. This paste possesses great adhesive power and is recommended where it is desired that the object to be pasted on or together should undergo no change in color or shading. Glycerine and oil of cloves may be added to preserve the paste.

6041. Acetic Acid in the Preparation of Extracts.

(C. M. G.) The National Dispensatory says that for some time past experiments have been going on in the hands of manu-

facturers and others with a view of introducing acetic acid, in place of alcoholic and hydroalcoholic menstrua, in the preparation of fluid and solid extracts. Results thus far published indicate that 99 per cent acetic acid is admirably suited for the exhaustion of certain drugs, particularly those owing their virtue to alkaloidal, aromatic and even resinous principles, less menstruum, as a rule, being required also for complete exhaustion. The fact, however, that acetic acid menstruum has been found to cause an increase in the percentage of extractive rather shows that, in some instances at least, an increased amount of inert matter is dissolved by the more aqueous menstruum, since practically no increase in percentage of alkaloid or active resinous matter has been observed. This would appear to be a drawback to the use of acid aqueous menstruum; besides which the presence of a considerable quantity of acetic acid in the finished fluid extracts might be objected to by physicians from a therapeutical standpoint. In a few cases, notably of alkaloidal and oleoresinous as well as purely aromatic drugs, superior preparations have been obtained with acetic acid menstruum, and the finished fluid extracts possessed a finer aroma than those made with the official menstruum. The U. S. Pharmacopoeia has recognized the value of acetic acid as a solvent in the manufacture of fluid extracts by directing its use, at least in part, in the case of nux vomica and sanguinaria; no doubt continued favorable results will cause the displacement of alcohol by acetic acid for a larger number of drugs.

6002. Elixir Cascara Sacrada Aromatic.

(F. A. B.) The following is taken from the Era Formulary:

Fluid extract cascara.....	4 fl. ounces.
Syrup wild cherry.....	2 fl. ounces.
Syrup.....	6 fl. ounces.
Oil cloves.....	6 minims.
Oil cassia.....	6 minims.
Oil lemon.....	20 minims.
Oil orange.....	20 minims.
Oil nutmeg.....	4 minims.
Oil fennel.....	12 minims.
Alcohol.....	2½ fl. ounces.
Fuller's earth.....	½ ounce.
Water.....	2 fl. ounces.

Mix and filter, pouring water through the filter to make 1 pint.

(2.) Make an aromatic fluid extract after the following formula:

Cascara sagrada (No. 40 powder).....	100 parts.
Calcined magnesia.....	1 part.
Alcohol.....	100 parts.
Water, quantity sufficient.	

Mix the alcohol with the water in the proportion of 2 to 3 of water; moisten the mixed powders thoroughly with the menstruum, and let stand until the bitterness disappears; then pack in a percolator and percolate, adding more water, if necessary, until 200 parts extract is obtained. To every fourteen ounces of the percolate thus obtained, add

Spirit cinnamon.....	½ dram.
Spirit nutmeg.....	15 minims.
Fluid extract licorice.....	1 ounce.
Glycerine.....	1 ounce.

Of this fluid extract, take four liquid ounces and add sufficient aromatic elixir to measure 1 pint.

6003. Doses of Atropine Sulphate, Strychnine Sulphate and Tincture of Cannabis Indica.

(H. H. M. D.) asks the maximum doses of these drugs that can be administered repeatedly, two hours apart, to an adult of intemperate habits. We are not informed whether they are to be given in combination or singly. Indeed, it would make but little difference in our reply, as it is a question for the physician, and he could only determine by knowing the personal characteristics and idiosyncrasies of his patient. No two patients are constituted alike and the dosage ought to be able to stand another might not endure. In a general way, the dose of atropine sulphate for internal administration is stated to be 1-20 to 1-60 of a grain, with a maximum of 1-20 grain per day. Subcutaneously it may be administered in doses of 1-300 to 1-125 of a grain. Strychnine nitrate, largely used in the treatment of dipsomania and alcoholism at the present, is given both internally and subcutaneously in doses of 1-60 grain up to the maximum of 1-6 or 1-3 grain per day. For long administration it is given in initial doses of 1-60 grain and increased each day until a dose of 1-6 grain is reached, in which amount it is to be given for 5 or 6 days, and then stopped for 10 or 12 days. In cases of delirium tremens, it is said that it may be used hypodermatically almost to the commencement of tetanic action. Cannabis Indica is generally considered antagonistic to strychnine, though it is frequently prescribed with nux vomica to modify the action of the latter. Tincture of cannabis indica is given in doses of from 10 to 30 minims, its physiological effects, however, being very uncertain. Your query may be farther answered by the general statement that in all cases, in which any of the drugs named are used, either singly or in combination, a careful practitioner will take into consideration the modifying operation of idiosyncrasies, and the conditions of the disease under treatment.

6004. Caking of Powdered Extracts.

(A. K.) asks how powdered extracts that have become hardened into a mass can be removed from the bottle, and if such hardening impairs the medicinal qualities. As to removing the extract from the bottle, there is no other way that can be suggested than for you to break the bottle. "Caking" of a powdered extract is by no means an uncommon thing. Just to what extent it may impair the quality of the extract depends largely upon the character of the drug from which the extract is made. All powdered extracts are not by any means the best representatives of the therapeutic value of drugs. Thus, black haw, conium seed, eucalyptus and valerian owe their virtues partly to liquid volatile products that are dissipated during the evaporating process, which necessarily modifies, to a certain extent, the therapeutic value of the powdered extracts. Again, some drugs contain resins, cannabis indica, for instance, which are semi-solid in their nature and they cannot be reduced to the condition of a solid without chemical alteration. Various diluents have been used for drying and preserving extracts. Sugar of milk, powdered licorice, dextrin, admixture of the powdered drug, etc.

It is very difficult to say just how much caking impairs the therapeutic value of

any powdered extract. It all depends upon the character of the extract. The absorption of moisture, if nothing else necessarily increases the weight of the extract and would seem to imply a readjustment of the dose.

6005. Peach and Pear Flavoring Extracts.

(Subscriber.) The so-called peach extract used for flavoring is generally a bitter almond extract, representing the oil of the peach kernels, rather than that of the edible portion. Here is a formula taken from the Era Formulary:

(1.)	
Bruised peach pits.....	4 drams.
Oil bitter almonds.....	2 drams.
Diluted alcohol.....	16 ounces.
Macerate 48 hours and filter.	
Here is a formula in which artificial ethers are combined with peach juice:	
(2.)	
Oenanthic ether.....	4 fl. drams.
Acetic ether.....	4 fl. drams.
Butyric acid of amyl.....	2 fl. drams.
Valerianic ether.....	2 fl. drams.
Oil bitter almonds.....	20 minims.
Peach juice.....	4 fl. ounces.
Glycerine.....	2 fl. ounces.
Cologne spirit.....	9 fl. ounces.

Mix and filter.

Dubelle gives this one:

(3.)	
Deodorized alcohol.....	50 fl. ounces.
Pure peach juice.....	20 fl. ounces.
Acetic ether.....	5 fl. ounces.
Formic ether.....	5 fl. ounces.
Butyric ether.....	5 fl. ounces.
Valerianic ether.....	5 fl. ounces.
Oil bitter almond.....	5 fl. ounces.
Aldehyde.....	2 fl. ounces.
Amyl alcohol.....	2 fl. ounces.
Glycerine.....	1 fl. ounce.

Flavoring Extract of Pear.

(1.)	
Deodorized alcohol.....	60 fl. ounces.
Pure pear juice.....	20 fl. ounces.
Acetate of amyl.....	10 fl. ounces.
Acetic ether.....	5 fl. ounces.
Glycerine.....	5 fl. ounces.

Deite gives this one:

(2.)	
Acetic ether.....	50 cubic centimeters.
Acetic amyl ether.....	100 cubic centimeters.
Glycerine.....	100 cubic centimeters.
Alcohol, 90 per cent, enough to make 1 liter.	

6006. Furniture Polish.

(G. G. S.)

(1.) Dissolve 4 ounces of orange shellac in 2 pints of alcohol of 95°. This will take from 24 to 36 hours, if the liquid is kept in a warm place and frequently shaken. Add 1 pint of oil of turpentine, and shake well. This will probably take up any residue of undissolved shellac. Add 2 pints of hotted linseed oil, and mix well by agitation. When thoroughly mixed, add 4 ounces sulphuric ether and an equal amount of strongest water of ammonia, and agitate. Shake the bottle before using. It should be applied with a sponge, and very lightly. The furniture should, of course, be washed and thoroughly dried before its use.

(2.)	
Yellow wax.....	1 pound.
Yellow soap.....	2 ounces.
Oil turpentine.....	2 pints.
Boiling water.....	2 pints.
Melt the soap and wax over a slow fire.	

add the turpentine, and lastly stir in the water until quite cold.

Here are three formulas for Polishing Pastes:

(1.)

One ounce beeswax, $\frac{1}{4}$ ounce white wax, 1 ounce Castile soap, 1 pint boiling water, $\frac{1}{2}$ pint turpentine, $\frac{1}{2}$ pint spirits of wine. Shred the wax and soap very thin; pour the boiling water upon the shavings and let it become cold; then pour on the turpentine and spirits of wine. Put a little on a cloth, rub it into the furniture, and then rub to a polished surface with a woolen cloth.

(2.)

One ounce pearlsh, 8 ounces genuine beeswax, 8 ounces water. Put all the ingredients into an earthenware jar, and warm the mixture so that it becomes semi-fluid; then add sufficient water to bring it to the consistency of cream. Reduce the consistency by adding more water, and then spread it on the wood with a painter's brush; let it dry, and then polish with a hard brush or cloth.

(3.)

Two quarts soft water, 2 ounces soap, 8 ounces white wax in shavings, 1 ounce pearlsh. Boil the ingredients, except the pearlsh, which is added after; then dilute the compound with water. Put the composition on the furniture with a paint brush, and polish off with a cloth or hard brush.

6047. Cleaning Carpets, Dry Method.

(C. C. F.) All carpets intended for dry cleaning must first be well swept or brushed with a hard broom. Have ready a number of dry coarse cotton or linen cloths, some coarse flannels, and one or more large pieces of coarse sponge; two or more hard scrubbing or scouring brushes, some large tubs or pans, and pails, and also a plentiful supply of both hot and cold water. First take out all of the grease spots; this may be effected in several ways: well rub the spot with a piece of hard soap, and wash out with a brush and cold water, and dry each spot before leaving it; or use instead of the soap, a mixture of fuller's earth, gall, and water, well rinsing and drying each spot as before. When this has been done the carpet may be cleaned by one of these methods: Cut up a bar of soap and dissolve it over a fire in two gallons of water. Put two quarts of this dissolved soap into a pail of warm water. Dip a scrubbing brush into this soap solution, and scour with it about one square yard of the carpet; be careful not to let the solution soak through the carpet. When this piece is thoroughly cleaned, rub the soap well out of it by means of a coarse flannel or sponge, sucking up all the wet and dirt made by the brush; rinse the flannel or sponge frequently in warm water. Have ready a pail of clean cold water, to which has been added enough sulphuric acid or sharp vinegar to make it taste sour. Take a clean sponge and dip into the sour solution, squeeze it out, and then rub into the part just cleaned and rinsed. Rub as dry as possible with clean, coarse cotton or linen cloths before proceeding with the cleaning. The whole carpet is to be cleaned and dried in the same manner, a square yard at a time.

To Clean with Gall—Put a bag of very fresh bullock's gall into a pail containing two gallons cold water, with four ounces of pearlsh dissolved in it, and well mix

by using a stick. Have ready, besides the above, two pails cold water, a large sponge, a couple of flannels, and some dry coarse cloths. Dip the brush into the gall and water, and scrub the carpet as quickly and as carefully as possible. Rinse, and suck up the gall and dirt with a large flannel or sponge, which is to be frequently rinsed in the pails of cold water. Dry with cloths before beginning a second square.

In dry cleaning, special care must be taken not to allow the liquor to soak to the back of the carpet. A good fire should also be kept in the room during the whole time, as much of the success of the operation depends on rapid drying.

6048. Books to Read up on Pharmacy.

(K. T.)—Your query, in one form or another, has been frequently answered in these columns. A list of the books necessary to prepare one to pass the Tennessee Board of Pharmacy examination is no different from the list of books required to post one for an examination by any other state board of pharmacy. The best methods of posting yourself cannot be decided by us. It remains for you to choose books and processes. If you wish to gain a thorough knowledge of pharmacy and one which would fit you to pass the Tennessee or any other board of pharmacy, the study must be undertaken systematically and in earnest. Systematic study is best accomplished in a college of pharmacy, but if it be impossible for you to undertake such a course, then we can offer no better advice than for you to follow this tabulated course of reading and plan of study, prepared by Dr. A. B. Prescott:

1. General Chemistry; First Principles; Attfield (first 128 pages), or Shepard.
 2. Study of Inorganic Chemicals in the Store—referring to the U. S. P.
 3. Operative Pharmacy; Remington's Part I.
 4. Botany; Gray.
 5. Organic Chemistry; Attfield, or Remsen.
 6. Practice in the conversion of weights, volumes, and chemical proportions. Reference reading.
 7. Study of the Crude Drugs of the store, their constituents and products. Doses. Reference Reading.
 8. The poisonous effects of medicines. Doses.
 9. Extemporaneous Pharmacy; Prescription Difficulties; Language of Prescriptions, and practice in their interpretation. (Remington's, Part V; Gerrish on Latinity. Reference Reading.)
 10. General Pharmacognosy and Pharmacy. A study of the Drugs, Preparations, and Operations of the store. Reading by Reference to the Books already named, the dispensatories, etc. Reference Reading of the Periodical Literature.
- About two years ago we ascertained the ideas of many leading pharmacists regarding the books indispensable in the drug store. The following is a typical list:
- U. S. Pharmacopoeia.
 - A Dispensatory.
 - National Formulary.
 - Era Formulary.
 - German Pharmacopoeia.
 - British Pharmacopoeia, or Squire's Companion.
 - Attfield's or Fowne's Chemistry.
 - Latin Dictionary.
 - Era Dose Book and Reference Tables.

Reference works advised are:

Malsch's Materia Medica.
Pharmacographia.
Watt's Dictionary of Chemistry.
A work on Urinalysis, Hoffmann's is good.
King's Dispensary, by Lloyd.
Remington's Pharmacy.
The Pharmaceutical Era.
Another live pharmaceutical journal of national importance.
If there is a local journal devoted to pharmacy you want that.

Gray's Botany.

A Medical Lexicon, Thomas' is good.

Read also remarks in Era, October 1, 1891, p. 267. Oldberg's "Course of Home Study in Pharmacy" is a system, and an excellent one, too, of imparting instruction and receiving replies through correspondence, in conjunction with systematic study of the text book advised.

Any or all of these books may be obtained from this office. For prices see advertising pages of this journal.

Formulas Wanted.

(A. S. C.) Thymoline.
(J. B. P.) Sans Mal. & Barr's Painless Extractor.
(Subscriber.) Delaware Peach Wine.

FRUIT JUICES BY DIFFUSION.—The diffusion process, which has been successfully used in sugar manufacture, is now being employed for the extraction of fruit juices. In manipulating apples in the process of cider making a great deal of albuminous matter is extracted. In the diffusion process the juice is washed out from the sliced fruit with cold water. The water passes from one compartment filled with fruit, to another, meeting in each division fresher fruit than in the preceding one, so that at the completion of the process it is saturated with juice, or more strictly speaking, it changes places with the juice, which issues nearly pure from the machine.

NICOTINE IN TOBACCO, says G. B. De Toni, is located chiefly in the epidermal tissues, being absent from the seed and young plant. The alkaloid does not appear to exercise any protective influence on the tobacco plant, since both the fresh and the dried leaves are devoured by many insects. Its function is believed to be simply excretory, and the alkaloid itself is a product of the reduction of oxygenous substances. The best chemical tests for nicotine are said to be double iodide of potassium and mercury; iodized iodide of potassium; tannic acid; tetrachloride of platinum; iodized iodic acid; Dragendorff's reagent; trichloride of gold.

VARIABILITY OF PATENT MEDICINES.—In recent cases of prosecution in Great Britain evidence of chemical analysts was brought to the effect that in a certain secret article the amount of morphine contained varied in the bottles examined from 1-10 of a grain to $\frac{1}{4}$ grain and 4-10 of a grain to the fluid ounce. This goes to show that the boast of some patent medicine manufacturers that their methods are reliable and produce uniform results, and that because of the magnitude of their operations they are better equipped for manufacturing remedies, is not carried out in experience and affords a warning against improper use of secret articles containing potent ingredients.

EXAMINATION QUESTIONS.

This department is for the publication of questions and answers from our readers, the object being to place before them questions for self-examination and to indicate the directions in which study can be profitably carried on.

We solicit questions to which replies are desired, particularly questions suggested by personal experience and study.

Correct answers to the questions in each series will be published in a subsequent issue of the paper, as announced, together with the names of all persons sending us correct replies.

Write the number of the series at the top of your reply and write on one side of sheet only.

Address—EDITOR PHARMACEUTICAL ERA,
Box 588, Detroit, Mich.

SERIES NO. 1.

Correct answers to these questions, together with the names of all persons answering correctly eight or more of them, will be published in our April 1st issue. Replies should reach us not later than March 15th, 1894.

1. Give meaning of the term evaporate, and state the difference between evaporation and distillation.
2. What is the difference between a sediment and a precipitate.
3. Give the official fluid or liquid measures, their abbreviations, and their equivalents in minims. (By "official" is understood U. S. P.)
4. What is the official thermometer? Why is mercury especially adapted for use in thermometers? Convert—10° R. into degrees temperature official standard.

5. Write a prescription for a four-ounce emulsion containing 25 per cent of castor oil. Give all the ingredients to make an agreeable and homogeneous mixture, with directions for compounding.

6. What significance is attached to the terminations ate and ite in the nomenclature of salts?

7. Define fermentation. What is a ferment? Give examples (pharmacopoeial) of the products of fermentation.

8. How would you distinguish between morphine and quinine? Between corrosive sublimate and calomel?

9. Two ounces of distilled water at 15° C. will dissolve how many grains of each of the following? Potassium chlorate? Boric acid? Epsom salt?

10. State the difference between annual, biennial and perennial plants, and give an example of each.

SERIES NO. 2.

Correct answers to these questions, together with the names of all persons answering correctly eight or more of them, will be published in our April 15th issue. Replies should reach us not later than April 1st, 1894.

1. In the nomenclature of the Pharmacopoeia how are the titles of substances expressed?

2. What is effervescence? Deliquescent? Name two pharmacopoeial salts which effloresce. Two which are deliquescent.

3. Outline the official process for making syrup of wild cherry. Why is this process used? Upon what constituent does the virtue of this preparation depend? Why is glycerine used in the preparation?

4. Give the official title and the common and maximum doses of Kermes mineral, mercuric chloride, African pepper, tincture of opium, tincture of digitalis, tinc-

ture cantharides. Which are toxic, and what are the antidotes?

5. Belladonna. Give the botanical name. Common name. Country indigenous to. What part is used? When should it be collected? What is the active principle? What is the dose of the powdered leaves? Of the principal alkaloid? Name antidote for belladonna poisoning. Name the official preparations of belladonna.

6. What do you understand by a poison? An antidote? A dose?

7. Write correctly in Latin, without abbreviation, and state the quantities of each ingredient, a formula to make one pint of an elixir, of which each fluid dram is to contain 1 grain of quinine, 100 grain strychnine, and 2 grains phosphate of iron.

8. Write an equation showing the reaction which occurs in the preparation of syrup lodide of iron by the official process. Spirit Mindererus, Hydrated Alumina.

9. What is the difference between a hydrocarbon and a carbohydrate? Give an example of each.

10. What is an essential oil? Name several official ones, and state their properties and dose. How would you detect the addition of alcohol to an essential oil?

SERIES NO. 3.

Correct answers to these questions, together with the names of all persons answering correctly eight or more of them, will be published in our May 1st issue. Replies should reach us not later than April 15th, 1894.

1. In what proportion must two quantities of powdered opium, containing 13.5 and 16 per cent of morphine respectively be mixed to produce 8 ounces of opium containing 14 per cent of morphine?

2. A quantity of official sulphuric acid weighs 15 grams. How many cubic centimeters does it measure? A quantity of official nitric acid measures 25 cubic centimeters. How much does it weigh in grams? In grains?

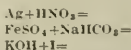
3. How would you distinguish between a root and an underground stem?

4. Which contains the larger percentage of alcohol; a solution made from equal parts by weight of alcohol and water, or one made from equal parts by measure of alcohol and water?

5. What is the percentage of bromine and how many grains of bromine are there in one ounce of potassium bromide?

6. What is an alum, chemically considered? Write the chemical symbols for two alums not containing aluminum. Name the pharmacopoeial and other varieties of alum.

7. Complete the following chemical equations:



8. What is meant by the following prefixes used in the nomenclature of salts: Mono, bi, tri, quadri, di, bis, ter, tetra, super, hyper, per, sesqui, sub, hypo, proto, ortho, meta, pyro, para.

9. What are the chemical differences between red and yellow oxides of mercury? Give the chemical formula for each.

10. Which contains the more quinine (alkaloid), quinine bisulphate or quinine sulphate? Give the percentage of quinine in each salt and exhibit the figures used in your calculations.

SERIES NO. 4.

Correct answers to these questions together with the names of all persons answering correctly eight or more of them, will be published in our May 15th issue. Replies should reach us not later than May 1st, 1894.

1) How would you distinguish between carbolic acid and creosote?

2) What is a symbol, and what does a chemical formula represent?

3) How would you prove that the specific gravity of iron is 7.50?

4) Name the pharmacopoeia directs shall consist wholly of stigmata?

4) How would you distinguish between gallic and tannic acids?

5) Name the best excipient for a pill mass with each of the following: An essential oil, potassium permanganate, balsam copaiba, silver nitrate, corrosive sublimate.

6) How would you dispense the following prescription?

Ferrous sulphate, ʒj grains.

Potassium carbonate, ʒss grains.

Mix, and divide into 24 pills.

7) How many one-eighth grain doses should there be in one-eighth ounce bottle morphine sulphate as found in the market?

8) What is an alcohol chemically considered? Name those covered by your definition that are official in the United States Pharmacopoeia.

9) How would you prove the air to be a mixture and not a chemical compound?

10) What is the difference between benzoin and benzol?

CHLOROFORM.—D. E. Dott, in a paper read before the North British Branch of the Pharmaceutical Society, suggested a modification of the official tests for chloroform, proposing the following description: A dense liquid, of characteristic odor; specific gravity 1.490 to 1.465. On allowing it to evaporate from a clean surface no foreign odor should be perceptible at any stage of the evaporation. When 1 fluid dram be agitated with an equal volume of solution of silver nitrate, no precipitate or turbidity should be produced after standing for five minutes. On shaking up the chloroform with one-half its volume of distilled water, it should not redden litmus paper. When shaken with an equal volume of sulphuric acid, little or no color should be imparted to the acid.

DEATHS FROM CONSUMPTION.—The discovery of the true cause and nature of tuberculosis has made necessary a general reconstruction of statistics of mortality. Text books formerly stated that tuberculosis, meaning particularly pulmonary consumption, affected most often persons between the ages of fifteen and thirty. But tubercular infection is now known to be most frequent as a cause of death in infancy. Then it is that the mesenteric and other lymph glands and the meninges are involved; in childhood the bones are prone to be attacked, in adult life the lungs. The mortality rate per 10,000 living persons is much the greatest during the first two years of life (2.5 per cent). It rapidly falls until, between the ages of six and fifteen it scarcely exists (0.15 per cent). It then steadily rises until the decades thirty-one to forty, forty-one to fifty, and fifty-one to sixty, where it remains at about 0.6 per cent, and then falls again. Males are more subject than females, in the proportion of 90 to 781.

NEWS COMMENT.

Druggists of Springfield, Mass., will sell goods at uniform prices.

Ozokerite has been found in the Green River country in Utah.

Martin's Ferry, O., druggists will discontinue the use of telephones.

Druggist M. S. Aisbitt, Oakland, Pa., burned out on February 28.

Opium "cookers" in Victoria want the high tariff on prepared opium retained.

C. S. Morse is now city salesman for the Lamar & Rankin Drug Co., Atlanta.

Annual meeting of the Interstate League in May. Place not yet selected.

Miles C. Comstock, prominent wholesale druggist and grocer of Utica, N. Y., is dead.

Dr. W. H. Nicholson, Louisburg, N. C., has sold his business to W. G. Thomas, of the same town.

A Peoria, Ill., druggist sold 750 vaccination points in one day. He has been averaging 25 a day.

O. M. Brooks, popular young druggist of Sedalia, Mo., was married February 21 to Miss Lillie E. Ray.

T. F. Meyer, of Meyer Bros. Drug Co. St. Louis, is rusticiating at Beaver, Utah, in the interests of his health.

J. H. Woodcock, Asheville, N. C., has sold his stock and fixtures to J. T. Ames, who will continue the business.

Kansas City druggists are agitating for lower telephone rates, and the St. Paul fraternity want the same.

A bill has been introduced before the Virginia legislature to incorporate the State Pharmaceutical Association.

Sommer, Lynds & Co., recently burnt out at Quincy, Ill., will resume business as soon as their building can be put in shape.

L. G. Matthaer, Martinsburg, W. Va., has bought out the firm of E. C. Williams & Co., and will continue the business at the old stand.

Minnesota board of pharmacy charges T. W. Esterly and C. W. Lasher, druggists, of Minneapolis, with employing unregistered dispensers.

The Sommer-Lynds Co., Quincy, Ill., recently burnt out, gets \$68,000 insurance. The damaged stock was sold to a salvage company for \$49,000.

The stock of Crouch & Watson, Rome, Ga., has been purchased by Trevitt & Johnson, of the same city, who will continue the business as heretofore.

E. R. Leonard and H. L. Mitchell, for some time drug clerks at Rockland, Me., will open a drug store at Bath under the firm name of Leonard & Mitchell.

F. S. Coburn, for twelve years manager of the branch store of T. W. Dalton & Co., Syracuse, N. Y., is now prescriptionist at the James street store.

An explosion on the premises of Lewis-Bailey Drug Co., Shreveport, La., March 3, started a fire which totally destroyed the building. Loss, \$125,000; insurance, \$75,000.

An Allegheny mother gave her infant chloral by mistake for a remedy for some childish ailment. Bottles just alike, child died; druggist not blamed; simple accident.

The quarterly statement of the South Carolina Dispensary shows the profits for the past quarter to be \$67,139. The last quarter, \$32,198.16, making the total net proceeds for the six months, \$99,337.16.

The Bolton Drug Co., of Brooklyn, N. Y., is defendant in a \$5,000 damage suit brought by a woman who claims to have been injured by the bursting of a bottle of peroxide of hydrogen she had purchased at the drug store and was carrying home.

Three men have been arrested at Johnstown, Pa., for selling a medicine as Hood's Sarsaparilla, for 25 cents, the charge being conspiracy and obtaining money under false pretenses. There was no cutting in the town until these men commenced operations.

Reifert & Kimmey, Syracuse, N. Y., have purchased the drug store corner of Clinton and Fayette streets, formerly owned by T. W. Dalton & Co. Mr. Kimmey has been employed in the store for eight years as prescription clerk and Mr. Reifert comes from Rome, N. Y., where he was at one time a member of the firm of Graves & Reifert.

The Allen Drug Co., Geneva, N. Y., will open what they consider the finest drug store in the state. Mr. Allen was ten years in the drug business in Malone, N. Y.; then sold to Shillinglaw & McNulty. Mr. Allen says he never sold liquors and does not intend to, even on prescriptions. Fixtures by Bangs; fountain from Tufts.

A strange story has developed at Stockton, Cal., it being occasioned by a recent elopement of a young drug clerk with a handsome young lady acquaintance of the city. It transpires that the eloping couple are brother and sister. Their parents having died when they were small children, the girl was adopted by a gentleman of Stockton, Cal., while the boy was adopted by a family of a different name in the east. As he grew up he learned the drug business and not many years ago came to California, located at Stockton, and formed the acquaintance of his sister in the usual course of social intercourse. An attachment resulting, the parties eloped to be married before the adopted father of the girl realized the situation, and he is the only person living in the state who knows the real relationship existing. Although every effort has been made to locate the couple so far they have not yet been found and the presumption is that having learned through the newspapers the real facts in the case and in all probability after the marriage ceremony had been performed, they will seek another residence where they will be entirely unknown.



EDWARD K. McPHERSON.

The news of the death of Edward K. McPherson, secretary of the Chicago College of Pharmacy, was a great shock to his friends. In December last he became ill with what was at first supposed to be the grippe, but which later developed into typhoid fever. In spite of the efforts of attending physicians, he grew steadily worse, until after nine weeks of suffering, he passed away February 8, 1894.

Mr. McPherson was born in Washington, D. C., June 28, 1853, and during boyhood attended the public schools in that city, later going west and studying for a year at the Chicago University. He began his pharmaceutical career in the store of his father, H. H. McPherson, in 1872, and was engaged there until the latter part of 1879. He then entered the junior class of the Chicago College of Pharmacy and received his diploma in 1881, and shortly became a partner in his father's business, also joining the membership of the college. So active was his interest in the affairs of this institution that in 1891 he was elected a trustee, and the following year was made secretary, both which offices he filled with great credit until his death. He was, too, a zealous member of the Alumni Association and had served for three years as its secretary. His name stood for several years on the enrollment list of the Illinois Pharmaceutical Association. He was an educated and conscientious pharmacist, an enterprising and successful business man, and above all a thorough gentleman. He won hosts of friends and built up a prosperous business.

In 1884 he married Miss Carrie Lyke, of Chicago, who survives him, as do his aged father and his sisters. Funeral services took place at his home, No. 1 Park avenue, and interment at Rose Hill cemetery with full Masonic rites, amid a profusion of flowers, the gifts of loving friends. The college has sustained a heavy loss in his death.

James Milne Smith, a wealthy man who died in Boston a short time ago, was born at Arbutnott, Scotland, and served an apprenticeship of seven years with Duncan Flockart & Co., druggists, in Edinburgh. Then he came to Canada for five years, and came to Boston in 1854. He was with the firm of Carter, Colcord & Preston, wholesale

druggists on Hanover street. For many years he was treasurer and general manager of the Suffolk Brewing Co., of South Boston. Soon after his arrival in Boston he became connected with the Scots Charitable Society, and for many years was the most active of its members. For two years he was its president (1854-5). He was also instrumental in infusing new life into the British Charitable Society, whereby its membership was trebled, and for nine years was its president. He was a prominent member and trustee of the De Moly Commandery of Knights Templars, as well as of other Masonic bodies. He was energetic in business, and his exceptionally strong characteristics brought him up from small beginnings to be a man of great wealth. He was a liberal giver to societies with which he was connected, and also to churches. Last summer he had an extended visit from James Buchanan, who was associated with him as apprentice in Edinburgh, and is now sole proprietor of an extensive wholesale druggist business there. Mr. Smith had three sons and two daughters.

A. M. Pett, representative of the Tilden Co. in Iowa, died at Manchester, Ia., March 1. Mr. Pett has been in the pharmaceutical and fluid extract line for the past twenty-five years and had a host of friends among the trade and profession. His home was at Winona, Minn.

Robert Emory Sellers, Sr., inventor of several patent medicines and formerly in the drug business on Wood street, Pittsburg, died February 1 in the 80th year of his age in Plainfield, N. J., at the residence of his son-in-law, W. G. Lord. The deceased had been failing in health for some years, and death was due to general debility. Mr. Sellers was a resident of Pittsburg for several years, and was well and favorably known here. He was a brother of Frank Sellers of this city, and is survived by five children. The funeral was held in Plainfield.

Frank Voelker, a well-known young pharmacist of Cincinnati, died of pneumonia on the 3rd inst. after a long term of illness. The deceased was an exemplary young man and was identified with the drug business in the Queen City for several years. He served his apprenticeship with the erstwhile wholesale firm of Chas. E. Potts & Company, and subsequently acted in various capacities with a number of houses. He then engaged in business for himself in the West End, but met with reverses. At the time of his death he was the manager of F. Exner & Co.'s retail store at Fifth & Race streets.

An Innocent old lady who inquired of a Maine drug clerk for balm of joy, was sent across the street to a liquor agency. The clerks in that part of the country seem to have no difficulty in translating queer orders.

H. A. Smith, a druggist of Binghamton, N. Y., who has been in business thirty-four years, is arranging to sell out to his clerk, William French. Mr. Smith has decided that he cannot take his money with him when he dies, and, therefore, intends to enjoy it the rest of his days. He is a lover of fine horses and the happy possessor of two of the best matched teams in the city.

NEW YORK.

New York, March 7.—A friend of the Era correspondent in the legislature at Albany writes, including a bill, which is given below, and asks: "Have you seen or heard of this measure?" This bill was introduced in the Assembly on January 16 by Mr. Southworth, was read once and referred to the committee on public health. It is entitled "An act to confer upon the state board of health power to analyze and examine drugs or medicines known as patent or proprietary medicines, and regulating the sale thereof." "The bill has never been reported, and it probably never will be," writes the informant. The full text of the bill is as follows:

Section 1. In addition to the powers now conferred by law upon the state board of health said board is hereby empowered, and it shall be its duty upon receiving a bill therefor of fifty dollars, to cause an examination and analysis to be made, by a practical chemist, of any drug, medicine or mixture of drugs, herbs or medicines, commonly known as patent or proprietary medicines, and shall ascertain and determine whether the use of the same may or may not endanger the public health, and it shall be lawful for any person or persons, or corporation, to sell or offer for sale any such drug, medicine or mixture not prescribed by a regular physician, unless the same shall have been so examined and approved and certified in writing as not dangerous to the public health by said state board of health.

Sec. 2. This act shall take effect immediately.

There is great sport every Saturday afternoon at the tournament of the Wholesale Drug Trade Bowling Association. It is held in a hall which is unfortunately too small to accommodate comfortably all the friends of the competing teams, but there is no lack of sociability nor can there be in a room where every man rubs elbows with two other men. The games are held in Hohnmann's alleys at 409 Pearl street, and last Saturday's competition was the third in the series. There was a big crowd present and the way the friends of the contestants raised the roof with their enthusiastic yells was a guarantee that the drug trade boys have strong lungs. E. A. Sayre, of Seabury & Johnson, was among the spectators, but he saw a number of chances to make the boys feel more comfortable and he improved them. The air was very close in the hall at one time, but he soon had the man in charge of the hall remedy that. Then he saw to it that no man wanted for refreshments, and what glimpse of the game he got was by standing on top of a chair and peering over the heads of rows of spectators. Albert H. Mason, of Seabury & Johnson, looked at the game and appeared to enjoy it, especially when the team from Maiden Lane made a good bowl. Among others who saw the sport and joined in the cheering were Russell Townsend, of McKesson & Robbins; John Clay, of Parke, Davis & Co.; Messrs. Berdorf and Hamlin, of Whitall, Tatum & Co.; J. B. Dakin, of Seabury & Johnson, and W. W. Dixon and W. H. Warren, of E. R. Squibb & Sons, of Brooklyn. George Seabury went into the game, as he goes into everything, with his whole heart and soul, and got just as much fun out of it as anybody could, considering the score. However, the Seabury & Johnson boys are young at the game and will yet give some of the other boys a hard tussle. When the results of the games were announced there were cheers all round and everybody said it was great sport. During the rest between the games the bowlers and their friends mingled

solids and liquids in the usual proportions with great success. The scores in Saturday's games were as follows:

FIRST GAME.			
Seabury & Johnson.....	S.	S. B. S.	8
Tremper	1	0	9 76
De Zeller	1	2	7 110
Dodge	2	2	7 89
Benjamin	0	2	8 91
Seabury	0	3	7 107

Totals	4	9	37 603
McKesson & Robbins.....	S.	S. B. S.	8
Schuster	2	2	6 130
Welch	3	3	4 145
Horn	1	2	6 128
Oehler	0	2	4 150
Timken	2	3	5 148

Totals	8	12	39 642
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FRAMES.										
Seabury & Johnson.....	39	79	141	157	234	252	343	406	456	503
McKesson & Robbins.....
Umpire—W. W. Tamlyn.										
Scorers—W. G. Herx and C. O. Herx.										
Averages, Seabury & Johnson, 100.2-5;										
McKesson & Robbins, 128.2-5.										

SECOND GAME.			
Seabury & Johnson.....	S.	S. B. S.	8
Dakin	1	1	5 128
Zeller	1	2	7 99
Dodge	0	0	10 89
Benjamin	1	0	9 89
Seabury	1	2	7 113

Totals	7	5	38 659
Parke, Davis & Co.....	S.	S. B. S.	8
Thornton	0	2	8 106
Ahern	4	2	4 161
Benkins	0	2	4 159
Mariager	0	3	7 109
Carr	2	0	8 108

Totals	8	11	31 634
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FRAMES.										
Seabury & Johnson.....	65	196	163	226	278	322	333	408	453	509
Parke, Davis & Co.....
Umpire—W. W. Tamlyn.										
Scorers—Seabury & Johnson, 101.4-5;										
Parke, Davis & Co., 126.4-5.										

Umpire and scorers—Same as in first game.

The standing of the teams is now as follows:

Clubs.	Games Won.	Lost.	High Score.
W. T. & Co.....	2	0	770
Dodge & O.....	1	0	665
McK. & R.....	2	1	698
P. D. & Co.....	1	1	697
S. & Johnson.....	0	2	559
Bacon & Co.....	0	1	581

Next Saturday the competing teams will be: G. G. Bacon & Co. vs. Whitall, Tatum & Co., and Dodge & Olcott vs. C. G. Bacon & Co.

A member of one of the most reputable firms in this city sends the Era correspondent the following letter, which will be read with interest, although for obvious reasons the name of the writer cannot be given:

"Regarding the different plans that have been proposed to meet the evil of cutting, it seems to us that those most interested have not taken into careful consideration the actual facts and difficulties surrounding the question, which should be carefully considered before any possible plan can be matured in order to meet this evil. It is undoubtedly a fact that some of the most earnest advocates of a plan to have manufacturers and jobbers prevent cutting have been among the first to break faith with their fellow druggists, and any one acquainted with the history of the different rebate plans is well aware that this bad faith is not confined to the retailers or the jobbers, as there are some manufacturers who have broken the rebate price of a competitor's goods in order to induce retailers to order their goods. Every such infraction of a plan places the honest manufacturer at the mercy of the unscrupulous one and injures him in two ways: First, by tying his hands so that he cannot sell his own goods on the same terms as the unscrupulous one; second, leads him into suspicion of furnishing these goods to the retailer himself. At the same time the conscientious manufacturer is at the mercy of the unscrupulous trade of the cutter, which is necessarily large on account of the cut prices at which he sells his goods.

"Again, if jobbers sell to cutters, any attempt on the part of the manufacturer to hold them to account insures an active opponent of such manufacturer, who is ever ready in substituting other goods for those of the manufacturer against whom he has a grudge. The Detroit Plan or the Interstate Plan places manufacturers totally at the mercy of the jobbers, of whom there is a large enough proportion who will not hesitate to sell inferior goods at standard prices for the same of an increased profit, to make this plan impracticable. After a retailer against whom it seems to us that the feasible and practicable plan, if there be such, would be for the retailers in every community to furnish one or more cutters with a fund to be devoted to the purpose of selling goods in the immediate vicinity of the cutter at such prices as would make the cutter weary. The same plan could be adopted by the jobbers with a cutting jobber. In most cases, it would not be necessary to do more than take aim, as in the case of David Crocker, at the store to be destroyed."

"As a general thing, there are some available stores in the immediate vicinity of the cutter which could be made a base for the operations of such jobbers. Retailists must be carefully thought out and the work done so that there shall be no undue publicity; that is, so that the cutters shall not be advertised. I think this plan would be effective if the retailers are as they claim to be, sincerely desirous of accomplishing the downfall of the cutting business. But so far, they have taken themselves like most other mortals. We have a way of looking to politicians to save us from political evils; financiers to save us from financial evils; and the clergy to save us from the evils which are supposed to be in the future; but common sense should teach us that the only way to get ourselves free from the particular evil I have written about is by the use of such power as is given us and with the use of such brains as we may happen to have."

Meeting the gentleman who sent this I was told that the crusade against a cutter in Nashua, N. H., had been managed on a plan similar to the one he suggests, and that if it was tried everywhere the druggists would soon have lots of cutters' store fixtures to dispose of.

A case in which the drug business, politics, the law and the church are all mixed up is that of C. F. Dreher, the postmaster and druggist, of Chatham, N. J. Some time ago Dr. W. J. Wolfe sold his drug store to Mr. Dreher, but even then the store had an unsavory reputation, for Wolfe had been indicted for selling liquor and keeping a disorderly house. Wolfe pleaded guilty to the charges and paid his fine. Then he procured the appointment of Dreher as postmaster of the town. The additional income of this position did not apparently cause the druggist to think that he could now afford to conduct his store in such a way as to give it a better reputation. Those "who knew" could always get a drink there. As the postoffice was in the same store, the people of the town could not help noticing that the law was violated and the better classes began to boycott the place. Those who wanted postage stamps went to the nearby village postoffice rather than to Dreher. Fully one-half the letters sent out from Chatham went by way of the railroad post-office, and even those of the same political faith as the postmaster condemned him for bringing discredit on the party. Now Dreher's clerk, Oscar Achenbach, has stood high in the church and is president of the local branch of the Christian Endeavor Society. The deacons of his church heard the stories about the sale of liquor in the postoffice and asked Achenbach if it was true. The clerk said he had never sold liquor nor seen it sold in the place. Then when Dreher was tried Achenbach swore that liquor was

freely sold in the store to all who asked for it, whether they had a physician's prescription or not. The deacons listened to this with amazement and Mr. Achenbach, it is believed, has only seen the beginning of his troubles. Dreher was, of course, found guilty. An effort will be made to have him removed from the postmastership, and besides that the court has sentenced him to pay a fine of \$150 and costs. Dreher will appeal the case.

The election of officers at the College of Pharmacy will take place on March 20. This is the ticket that was sent out: President, Samuel W. Fairchild; first vice-president, Charles F. Chandler; second vice-president, George Massey; third vice-president, John R. Caswell; treasurer, Horatio N. Fraser; secretary, J. Niven Hegeman; trustees for three years, Hermon W. Atwood, Charles A. Osmon, Gustavus Ramsperger, Charles Rice and George E. Wray. Then came the following, which explains itself:

To the Members of the College of Pharmacy of the City of New York:

The ticket of the nominating committee of the college for 1894 is now in your hands. It does not contain the name of our old friend and fellow worker, Thomas J. Macmahan.

Mr. Macmahan has been a member of the college for twenty-four years, and for the last ten years one of the trustees. He has been a faithful, conscientious member of the college and is now in your hands. It does not contain the name of our old friend and fellow worker, Thomas J. Macmahan.

He has been a faithful, conscientious member of the college and is now in your hands. It does not contain the name of our old friend and fellow worker, Thomas J. Macmahan. Signed, H. W. Atwood, George Massey, Alfred Van Horn, Geo. Wm. Kemp, Henry E. Platt, J. R. Caswell, H. J. S. Hall, B. Bezza, A. Merritt, Albert Platt, E. Carter, F. G. Couch, C. E. Corradi, M. K. Sweitzer, F. W. Norris, Edward Kemp, Wm. Henry Hall, Adolph Tscheppe, Wm. M. Massey, Samuel W. Bowls, Chas. H. Chumley, Ed. Kerley, J. W. Dougan, A. P. Kerley, Theo. H. Sherwood, J. Chester Hasbrouck, F. W. Carpenter, E. A. Sayre, J. J. Molloy, C. H. White.

Now small slips have been sent out bearing the name of Mr. Macmahan for trustee, so that there are six gentlemen whose names are before the voters for election as trustees, only five of whom can be elected.

One could fill a page with quotations from the kind words spoken about Thomas F. Cook when the fact of his change from the house of Merck Co. to the New York Quinine & Chemical Works became known. The Era correspondent gave several gentlemen the first information they had on the subject. Apparently Mr. Cook's change created some surprise in the trade, but it was the means of bringing out just what the drug men think of him, and they spoke their minds in no uncertain tones. In fact, they all agreed that "Tom Cook is one of the finest men that ever walked in shoe-leather." Mr. Cook is remarkably well known all over the United States in his line of business and every friend of his will be glad to hear that he has become vice-president of the New York Quinine & Chemical Works. Now he will remain in New York, undoubtedly an agreeable change for him. Those who used to see him every now and then out west will miss him, but their loss is a gain to the New York trade. Mr. Cook's successor at Merck & Co.'s is Mr. I. Loud, who has been the inside man for the firm and has had charge of the pricing of goods.

He is very familiar with the business of the firm and will take with him the best wishes of everybody. At the time this letter is sent it is understood that Mr. Queneey, of the Meyer Bros. Drug Co., of St. Louis, is to take Mr. Loud's place. Mr. Queneey was to have taken charge of his new work a week ago Monday. He is an experienced buyer.

J. N. Hegeman & Co., have had their first fire in nineteen years. The firemen who put out the blaze at the 59th street store labored under the impression that it was the third Hegeman fire they had been called upon to put out within a month, but they were soon informed of their mistake. The other two fires were at the Hegeman corporation's store on Lower Broadway, a very different kind of a concern. How the 59th street fire started is not definitely known, but it is said that it began at the foot of an elevator shaft and not in Hegeman's cellar. The Hegeman store was a beauty and was the pride of J. Niven Hegeman. It was one of the neatest stores in this city and was attracting trade daily. Some druggists thought it was in an out-of-the-way place, but the transient trade was very considerable, and besides it had the big hotels, the New Netherlands, the Savoy and the Plaza, to draw on and no better class of patronage could be obtained in this city. The loss will figure somewhere between \$5,000 and \$10,000. The cellar is a perfect wreck, and while many articles in the store are still under lock and key awaiting the adjustment of the insurance, it can be stated that almost everything will have to be thrown away. Just as soon as possible the store will be opened for business. Manager Moderwell, of the 59th street store, is now at the 30th street and Broadway store.

Ernest A. Denick has a drug store at the corner of Tenth street and Second avenue. He had a boy employed to do the odd jobs, who was obliged now and then to go down into the cellar of the shop, where there are many bottles, some of them containing wine. After one of his trips downstairs the boy alleged that he had his ears boxed by a ghost. This statement caused some uneasiness around the store and people began to watch for the ghost. One night some of the watchers saw a form emerge from an adjoining cellar-way and promptly threw missiles at it. The "form" turned out to be the owner of an establishment next door to the drug store, and the assailants had to beg his pardon. Then a Brooklyn druggist offered \$20 to anybody who would go into the cellar at midnight. One man tried to win the money, but came out of the cellar before his time was up crying for medicine. The funniest thing about the whole matter is that the ghost must have been a tippler while he was a mortal, for the contents of a special cask of wine in the cellar have disappeared since the advent of the shadowy visitor. It is recommended that a bear trap would be just the thing to keep in that cellar.

Tarrant & Co. have placed in their office a big showcase that contained the exhibit of Hindes, Ltd., at the World's Fair, and will soon make an exhibition of the products of that firm, for whom Tarrant & Co. are the American agents. A consignment of brushes is now on the ocean, but previous to its arrival some very handsome brushes, as well as the woods and bristles used in their manufacture, are shown in the case, which is about 12

feet square and 10 high. There are to be seen the largest half-brush in the world, the smallest and several score more with nothing but their excellence to recommend them. This largest brush was made by people who have been in the employ of the London & Birmingham Company for over half a century. It contains more than 3,000 knots of bristles and has been shown at the following fairs: London, 1851; Paris, 1873; Sydney, 1879; Manchester, 1880; London, 1886; Adelaide, 1887; Paris, 1889; Royal Military, 1890; Kimberly, 1892, and Chicago, 1893.

The building of the Pre-Digested Food Co., manufacturers of Paskola, at 70 Reade street, is a handsome structure of six stories with marble front, and the Era correspondent, who was shown over the building by John B. Russell, late of Parke, Davis & Co., found it a veritable beehive for push and business. On the sixth floor are the digesting vats, with pipes leading to the filling floors beneath, where some fifty girls are employed in filling and wrapping the bottles. The next floor is designed for storage, but up to the present time Mr. Russell reports that it has been impossible to get ahead of orders. On the floor beneath are the handsomely appointed offices of the company. The offices of Mr. A. J. White, Mr. Lyman Brown and Mr. Russell occupy the Reade-street front of the second floor, while the bookkeeping and correspondence departments are directly in the rear. The first floor is devoted to the shipping and printing departments.

A druggist who has a telephone pay station in his store tells me that his profits on the telephone business amount to about \$10 a month. He and all other druggists who have pay stations are interested in the bill introduced in the legislature regulating telephone charges. This bill provides that the charge for the use of a telephone in cities of one million inhabitants or more shall not exceed a rate of \$73 per annum, and grading from that down to \$27, according to the size of the city; that the charge at public or pay stations shall not exceed ten cents for the first five minutes and five cents for each five minutes or part of five minutes thereafter, and that no yearly or monthly subscriber for a telephone shall be charged for the use of a telephone at any public or pay station when he produces a ticket which is to be furnished by the company showing him to be a subscriber. This new arrangement would quite materially reduce the druggist's profit.

Colph, of 207 Bleeker street, is to start a new store on Columbus avenue.

Thomas Horner, brother of James B. Horner, died on March 1 of cancer of the throat.

P. J. Slinger, of Sinker & Wheeler, Peoria, Ill., has been in this city for some days on business.

The Hegeman Co. has settled with the insurance companies for the loss at the store on Lower Broadway, and resumed business last Monday.

The Dix Pharmacy Co., which has been located at 1065 Sixth avenue, is to move into the store on the next corner, formerly occupied by the drug store of H. T. Klein.

The L'Estrange pharmacy at Rutherford, N. J., will soon occupy the new building across the street from its present quarters. The new store is to be fitted in mahogany.

F. K. James, the Eighth avenue druggist, has again been under the weather, but is now attending to business as usual.

Our grand juries in New York county usually have a representative of the drug trade on them, but this month's jury has four. They are Brent Good, James M. Furr, John H. Stead and John H. Banks.

John W. Cox, of the Antikamnia Co., has gone to New Orleans to join his partner, Frank A. Ruf, of St. Louis. They will soon be enjoying the delights of a trip to Cuba and they will stay there for a week or two.

Samuel W. Fairchild has been elected a vice-president of the North Side Board of Trade, which has been organized this week by the business men residing north of the Harlem, in what is known as the annexed district.

R. W. Walker, New York agent for James W. Tufts, reports that among the new stores he has fitted with Tufts' fountains are those of Arthur God, Jersey City; E. C. Sharp, Vineland, N. J., and J. K. Lippen, Salem, N. J.

"Doc" Archie Wilson, of Perry's, in the Sun building, has been laid up for a few days by sickness, but is expected to be as well as ever in a day or two. In the meantime J. W. Batchelder, assistant manager of Perry's, has taken a little taste of night work for a change.

The liveliest part of this city is said to be that part of 28th street that lies between Broadway and Sixth avenue. Yet on neither side of the street is there a drug store and there are two vacant houses in the two blocks, both near Sixth avenue.

E. W. Wilson, western representative of the Dehamme, Deletre Brush Co., is in town for a few days and has met many of his friends in the trade. Mr. Wilson makes his headquarters in Chicago. The company reports trade as continuing very favorable.

Many New York drug trade men will be sorry to hear of the death of T. B. Aitchison, of Rutland, Vt. He was formerly in the drug business in this city and has since been located in Rutland, where he has been at the head of the firms of Aitchison & Connor and T. B. Aitchison & Co.

The stores at the southeast corner of Broadway and Wall street have been leased to William Wilson, a druggist. Mr. Wilson will make extensive alterations for the purposes of his business, but this transaction effectually disposes of the rumor that a sky-scraping building was to be erected at that corner.

Brent Good, of the Carter Medicine Co., has been out west for three weeks with John H. Bird, attorney for the company, engaged in the prosecution of counterfeiters of Carter's Little Liver Pills. Reports to the office here show that they have caused the indictment and arrest of three men and that this particular case of imitation of the company's trade mark will no longer bother the Carter people.

S. M. Strong, of Strong, Cobb & Co., evidently thinks the weather here is pretty good, although New Yorkers have found plenty of chance to grumble at it recently. Mr. Strong announced when he came out that if the weather held good he would probably stay a month. If it was bad he would only stay a week or so. He has been here nearly a month now to the delight of his friends who, however, wonder what kind of weather is called good out in Cleveland.

Among the Brooklyn druggists who are helping the poor by keeping "coal fund" boxes in their stores are W. H. Douglass, 423 Fulton street; Bolton Drug Co., 456 Fulton street; P. F. Wright, Gates and Reid avenues, D. Cameron, Reid avenue and Hancock street, and Morrissy's Pharmacy, Fulton street, corner of Myrtle avenue.

Alfred H. Mason, secretary of the firm of Seabury & Johnson, has been presented with a large, handsomely framed photograph of the faculty and college board of the Montreal College of Pharmacy. Mr. Mason was very much pleased with the present, which was given by the board as a souvenir of his connection with the college as one of its presidents.

H. Baskerville Mason, son of A. H. Mason, of Seabury & Johnson, arrived at Liverpool all right on the Umbria, and is now in London. Another member of Mr. Mason's family, his eldest daughter, Miss Ada, is by this time also in London. Miss Ada Mason is shortly to become Mrs. Lionel Bailey, and previous to the happy event she will reside with her relatives in England. Mr. Bailey is an official of the government civil service.

Among the stores recently fitted with Low Art Tile fountains by Howell & Sangston, New York agents for the company, are those of William Wright, of Atlantic City; E. M. Sedgwick, of Catskill, and John W. Schenk, of Somerville, N. J. Mr. Wright was so well pleased with the Low fountain put in at his board walk branch store that he secured a nine-foot one for his main store. This fountain is a very handsome apparatus with a tile top representing the four seasons of the year.

C. G. Bacon, of C. G. Bacon & Co., gave a dinner to a number of gentlemen in the drug trade at the Imperial Hotel the other evening. They had a royal good time and later on went to the Casino as Mr. Bacon's guests. Among those who enjoyed the pleasures of the evening were Messrs. J. H. Stead, of Whitall, Tatum & Co.; Charles E. Lovitt, of C. G. Bacon & Co.; I. Loud, of Merck & Co.; Charles Welsch, of McKesson & Robbins; R. P. Vanderhof, of J. L. Hopkins & Co.; C. G. Euler, of Dodge & Olcott, and C. Herrmann, of the Maltine Mfg. Co.

The Nichols Chemical Co., of Brooklyn, was among the signers of the call for the meeting of Brooklyn manufacturers to arrange for a permanent organization. The object of the association is: To promptly advise all members of the organization of any proposed national, state, county or municipal legislation in any wise affecting manufacturing interests, to aid the carrying out of legislation in the interest of the manufacturer and the working people employed by the manufacturer, and to prevent by all honorable means the passage of any act detrimental to such interests.

Lazell, Dalley & Co. have had so many calls for the loan for exhibition purposes of their display of bottles now in Hegeman's window at 30th street and Broadway, that they hardly know what to do. The exhibit is that shown at the World's Fair and it attracts many persons to the window, especially at night when the electric lights are turned on. Among those who have asked for the exhibit are firms in Chicago, Detroit, Philadelphia, Newark and Boston. The bottles are worth not less than \$3,500 and great care has to be taken in moving them. Besides that the

firm spends something like \$200 or \$300 in mounting the exhibit. It is no wonder that such a choice collection is in demand.

NEW YORK COLLEGE OF PHARMACY.

Never before in the history of the college was there so much interest in any report about college matters as there was in the story in the Era of February 15 on Mr. Wurthman's speech. This speech and the Era's report of it will long be remembered at the college if for no other reason than that which now calls for this explanation. The seniors have met and declared that they consider that the report was not a true one and in fact have taken the whole matter in a very different light from what was intended. Before making any explanation the Era correspondent wishes to assure the senior class that he is very sorry the report should not have met with that cordial greeting it was hoped it would receive, and moreover, that the Era correspondent is told by the gentleman who furnished him with the report that he still thinks the facts were practically as first stated. In order to show that the informant is a gentleman who has a high regard for the truth this letter ought to be read:

Era Correspondent—It seems that the boys have taken that article about Mr. Wurthman's report from an entirely different standpoint than what was intended. They object most strongly to the term "very enjoyable," and some even claim it was a deliberate falsehood to say he used any such term. I am very sorry to have been the cause of this little trouble, as my intentions were only of the best, and the report was, to the best of my knowledge and belief, strictly a truthful one. I will say, though, that at this writing I am not quite certain whether the words used were "very enjoyable" or "very nice." I am especially sorry about the matter as the boys have passed resolutions protesting against the report.

That seems like a good honest statement, doesn't it? I hope the seniors will believe that the article was not intended to hurt anybody's feelings and that this be considered an apology for any error. Not the slightest reflection on the memory of Dr. Harrison was intended.

J. W. Lining was elected secretary of the senior class at a recent meeting.

At the meeting of the senior class on February 23 Mr. Kussy, who had been elected the class valedictorian, made a motion that the question of having a valedictorian on commencement night be reconsidered. This was immediately opposed by such able orators as Messrs. Horn, Brater and Wood, who all claimed that to haul this question to the front again after it had been knocked down and stamped on three times was an entirely uncalled-for proceeding. The motion to reconsider the matter was lost.

H. W. Atwood, the well-known chairman of the building and electric committees, has been very sick with pneumonia, but will be able to be out in a few weeks.

Burglars made a raid on Clarence, Mo., not long ago. They robbed the drug store and several other stores.

The National Lead Company has sued S. E. Grote, a paint and oil dealer in St. Louis, for \$1,791, alleged to be due for goods delivered.

William T. Green, a prominent lawyer at Carthage, Mo., has been adjudged insane and taken to the state asylum. The physicians say that his mental condition is the result of a liquor cure and an anti-fat treatment which he recently took.

BOSTON.

Boston, March 10.—Druggists who, perhaps, know as much as the average public-speaker-on-all-kinds-of-subjects, must be somewhat amused by some of the awful pictures drawn every year at the State capitol by those well-meaning, but unnecessarily anxious persons who rush up before legislative committees to tell what a horrible fate is in store for the young men of Massachusetts unless there is a speedy revocation of the privilege of selling cigarettes. There was the periodical hearing on the old subject a short time ago, when L. J. Kimball, a dentist, of Lyon, appeared before the committee on public health in favor of the passage of the bill prohibiting the manufacture or sale, or exposing for sale cigarettes with paper wrappers, or cigarette tobacco in any form. He would rather find a bottle of whiskey in his son's pocket than a package of cigarettes. W. P. Cherrington said he appeared as an expert user of tobacco for fifty years; he had been able to leave off using tobacco without injury to his health, but the use of cigarettes had put him on a bed of sickness. Dr. Caroline E. Hastings spoke strongly in favor of the abolishment of the cigarette, and cited instances of the deteriorating influence upon the users, especially upon the nerves and heart. She put in a plea for the rising generation, and that to follow, saying that nothing could rise higher than its source. James J. Dooling appeared as a remonstrant, and ridiculed the position taken by those in favor of the bill. He wanted to know why those who would prohibit did not bend their energies toward amending the present law against selling, by attempting also to prohibit smoking. The reason they did not, he said, was because they felt it would be impossible to enforce any such measure. It is not at all probable that the legislature will ever adopt such a measure as that advocated, but the ideas advanced are interesting.

Registered pharmacists who are making illegal use of their certificates must take care to conform to the laws, for the board of registration in pharmacy is after them closely, and several certificates have been suspended and others revoked because of illegal use. The appropriation made by the legislature of 1893 is bearing fruit. Several raids have been made, and a number of drug stores have been closed. At an adjourned meeting of the board the other day the case of Michael H. Wallace, of Chelsea, who was charged with making an improper use of the certificate issued to him by the board, was disposed of and his certificate was revoked. After considering this case the board voted "that after every opportunity given Michael H. Wallace, with permission to bring any witnesses to the adjourned hearing to testify in his behalf, he has completely failed to controvert the testimony that his certificate has been unlawfully used, and that his previous usage of certificate of which he had three granted him, one original and two duplicates—one of which was unlawfully used in Lowell in 1891—show that he is not a proper person to be intrusted with the rights conveyed by a certificate of registration in pharmacy. It is therefore, the unanimous opinion of the members of the board present that, the case being a most flagrant one, the three cer-

tificates which have been granted him are hereby revoked altogether."

A well attended meeting of the creditors of C. H. Bassett, doing business as an apothecary under the name of J. T. Brown & Co., at 199 Tremont street, was held on March 6. The utmost harmony prevailed and there was manifested an earnest desire on the part of all present to effect some settlement by which Mr. Bassett might be enabled to continue business under more favorable circumstances and without interruption. Emory Grover, to whom Mr. Bassett has made an assignment for the benefit of his creditors, called the meeting to order and made a statement of the condition of Mr. Bassett's affairs as he had found them. The liabilities are \$18,571, including a note for \$10,000 held by Mr. Bassett's mother. The assets are \$13,352, comprising stock and fixtures in the Tremont street store, chemicals and apparatus in the laboratory on Bedford street, and book accounts. Mr. Breck, representing the Boston Ice Co., was chosen chairman of the meeting and J. T. Brown secretary. Mr. Brown thought it would be impossible for Mr. Bassett ever to pay them in full. He was one of the largest creditors and he was willing to accept any reasonable proposition for a settlement. The meeting then voted to approve the choice of an assignee made by Mr. Bassett, and adjourned to meet at the call of the assignee.

An important hearing has been given at the State House by the committee on public health on the bill offered by Mr. McInerney to regulate the sale of secret proprietary medicines containing alcohol. The objection is not so much against the use of the alcohol in the medicines as to have the percentage of alcohol distinctly specified on the package or bottle. W. W. Bartlett, the well-known druggist, favored such a law. Dr. Davenport, State chemist, was rather neutral in his position on the matter. He told of certain medicines in which a great amount of alcohol had been found. He would not seriously object to the bill or one tending in the same direction. Fred L. Carter, of Carter, Carter & Kilham, and E. Waldo Cutler, of Cutler Bros., druggists, remonstrated.

A sensation has been caused at Skowhegan, Me., by the announcement of the financial embarrassment of George Cushing, one of the leading druggists. According to his own statement, his liabilities are about \$14,000, and his wife's about \$1,700, this amount being due on their firm residence on Madison avenue, which stands in her name. Among his liabilities is \$2,500 held in trust for Harry Cushing, his nephew, of whom he was guardian. Of this amount his bondsmen are held for \$2,000. The assets consist of stock in trade, medicines, fancy goods, drugs, artists' materials, store fixtures, etc. The largest creditors are Portland and Boston men, and others are Skowhegan friends from whom he had borrowed money.

Two chemical companies have just complied with the law calling for the filing of annual returns at the State House relative to their affairs. In brief the certificates are as follows: Merrimac Chemical Co.—Assets, real estate, \$141,938; cash, \$65,800; stock, \$101,013; miscellaneous, \$14,374. Liabilities, capital, \$213,832; debts, \$68,633. Net increase for year, \$6,230. Hampden Paint & Chemical Co.—Assets, real estate, \$35,577; machinery, \$11,812; cash, \$14,097; stock, \$13,675. Liabilities, capital, \$50,-

1000, 4-bats, \$24,083. Net decrease for year, \$7,153.

As usual about this time of the year the Boston Board of Police announces that it is ready to receive applications for liquor licenses and that the druggists' fee will be \$1.

J. W. Tufts was last heard from at Lake Maitland, Fla. He will be absent for several weeks.

Improvements are going on at Bissett & Fournay's, Natick, and a Low fountain will be set up.

An association for mutual benefit has been formed by the druggists of Auburn and Lewiston, Me.

P. C. Croy & Co., druggists, suffered a loss of \$5,000 by a fire at Haverhill on the night of February 25.

W. P. Draper's handsome drug store in Springfield is soon to contain a ten-foot fountain supplied by the Iowa.

T. P. Hawkes, of Danvers, whose store was burned, has lately refitted the place, incidentally putting in a Low fountain.

Prof. James F. Babcock, president of the Boston Druggists' Association, and also the State assayer, has lately figured prominently as an expert in a murder case in this State where there was suspicion of poisoning.

Liquor "spotters" have lately been working in Concord and Manchester, N. H., and as a result many druggists are feeling uncomfortable. However, public sentiment appears to condemn some of the methods of these hired spies.

Edwin C. Traver, a drug clerk in Barrs, has become involved in considerable trouble, owing to the fact that, after having become engaged to one young woman, he suddenly married another. Circumstances led to his arrest immediately afterward.

Ell Phelps, a retired apothecary, died at Foxborough a few days ago, aged 70 years. He was a prominent Democrat, and held many town offices. He was treasurer of the Foxborough Savings Bank for the past fifteen years. He had a wife, one son and two daughters.

H. F. Lawrence, of Wakefield; Albert Fenner, of Providence, R. I.; J. F. Burns, of New Britain, Conn.; T. F. Gilligan, of Berlin, Conn.; Cheney Bros., Lindenville, Vt.; H. H. Baskey, St. Albans, Vt.; Starr Bros., New London, Conn., all of whom are druggists, have lately bought Low fountains.

In anticipation of the March winds the Boston druggists make a fine showing of lung protectors in their store windows. This reminds one of the little girl who entered a south end drug store one day with her little black and tan terrier and innocently asked for "one of those red dog blankets in the window."

A very entertaining and instructive lecture took place the other evening at the Young Men's Christian Union, when Messrs. R. W. Drawbridge and H. B. Slade, of Providence, gave the seventh in the course of practical talks to the public, upon "An Evening in the Laboratory," illustrated by over twenty of the most brilliant experiments known in chemistry.

At the monthly meeting of the Boston Druggists' Association at Young's there were about thirty members present. President James F. Babcock read an original poem, "The Druggists' Calendar." The subject of the after-dinner speaking was reminiscent, and concerning the trade. Among the speakers were Ernest Meicall,

Thomas Dollber, Joel S. Orne, Amos K. Tilden, Henry Canning, William W. Bartlett and Albert C. Smith.

Among the New England druggists who have lately bought fountains from J. W. Tufts are Clarence E. George, of East Boston; A. A. Laing, of Cambridge; Chas. E. Hitchmond, Taunton, Thackeray & Kelley, Phil River; R. W. Norton, Kennebunkport, Me.; L. S. Jackson, North Berwick, Me.; T. W. Orne, Boothbay Harbor, Me.

Fred Gonya, of Thurston's drug store at Island Pond, Vt., returns to Portland, Me., on the 12th inst., to his old position in the eye and ear infirmary, with greatly increased prospects of promotion and with better opportunities of becoming an expert in his profession. His place in the drug store will be filled by Charles Vallee, who will leave Norway, Me., in a few days.

An official notification has been sent to the aldermen by the board of registration in pharmacy announcing that the certificate of registration in pharmacy (No. 225) and two duplicates thereof, granted to Michael H. Wallace, of Chelsea, one of which certificates has of late been used in the store of B. McDonough, No. 535 Saratoga street, East Boston, have been revoked.

Some time ago the mayor vetoed the order given the Pulsifer Chemical Co. and E. Grossman the right to project showcases at No. 20 Broad street. At the last meeting of the aldermen, however, the orders were passed, the mayor's veto to the contrary notwithstanding. The committee on public buildings recommended the passage of the order for the reason that business men should be encouraged.

In the jury-waived session of the Superior Court Judge Hammond gave a finding for the nominal amount of \$1 for the plaintiff in the case of James W. Tufts against John E. Bennett. The suit was instituted to recover damages for the breaking of a contract to buy a soda fountain apparatus to the amount of \$2,400. The court found that the defendant repudiated the agreement to purchase, but also said there was no evidence of actual damage to the plaintiff by such breach.

When the new Tremont Temple arises from its ashes and is in good working order the directors of the church society which controls the institution intend to institute some vigorous reforms. One applies to the drug store on the street floor. This will not be reopened unless its doors are closed on Sunday for everything except, perhaps, the compounding of prescriptions. The directors think that the fizz of the soda fountain and the accompanying sale of cigars is not a Sunday necessity.

Eugene Levitan and Leonard J. Pastor have each been sentenced to six months in the house of correction by Judge Sherman in the Superior Criminal Court. They conspired last summer to obtain a certificate from the State Board of Pharmacy, in the name of Levitan. Levitan was wholly incompetent to pass the examination of the board, and so it was planned to have Pastor, who was capable of passing the examination, take it under the name of Levitan. This plan was carried out. Later, however, Pastor tried the examination in his own name, and was caught. The men said they were impelled to attempt the fraud through hard circumstances. Up to the time they were sentenced they had been twelve weeks in jail.

PHILADELPHIA.

Philadelphia, March 10.—This city, as far as the drug business is concerned, is leader (thru a western mining town after the mines have petered out. While there is some business being done it is in such small quantities that it hardly pays for the trouble of putting it up. This condition of affairs is not confined to any one house; but to nearly all, although there are one or two instances where better business is reported. But in such cases the trade of these houses has been very light and their customers have only been buying from hand to mouth until their supply had become exhausted and they were compelled to renew some of their wares.

The following committees have been appointed by President Wm. J. Miller, of the Philadelphia Drug Exchange:

Publishing—M. N. Kline, Jr. A. W. Miller, Dr. R. V. Mattison.

Legislation—Alexander H. Jones, Edward H. Hance, H. N. Rittenhouse.

Membership—L. Hassel Lapp, John Ferguson, C. E. Hires.

Room—H. B. Rosengarten, John Ferguson, Edward H. Hance.

General Information—H. N. Rittenhouse, M. N. Kline, Dr. R. V. Mattison.

Arbitration—Dr. A. W. Miller, Alexander H. Jones, H. B. Rosengarten, L. Hassel Lapp, Wm. Gulager.

The junior class of the College of Pharmacy has been having a busy time during the past two weeks. Three hundred and forty-nine of its members were examined in operative pharmacy on Saturday, March 3. This is the only institution in the country where the juniors are examined in practical pharmacy, but the faculty believes that it is essential to advance its standing at the same time that theoretical knowledge is acquired.

The first preparation to be made was a medicated water, these materials being furnished:

Camphor, 1 gm.
Alcohol, 1 c. c.
Prec. calcium phosphate, 1 gm.
Water, q. s., 125 c. c.

An ointment was next in order, with these ingredients:

Red mercuric oxide, 2 gm.
Castor oil, 1 c. c., (vel. gtt. xv.)
Ointment, 17 gm.

Then came a granulated salt, as follows:
Acid salicylic, 7 gm.
Sodium carb. c. p., 6.5 gm.
Dist. water, q. s.
Make sodium salicylate.

Prof. Bastin has made appreciable improvement in the microscopical laboratory and more students are being instructed in pharmacognosy with the aid of the microscope than ever before. It is probable that next term the course will be made more general, and microscopical work will take its place by the side of that in the chemical and pharmaceutical laboratories.

The next meeting of the board of trustees is to be one of importance, involving the election of two new members to fill vacancies created by the death of Prof. Maisch and the retirement of James T. Shinn when he was made treasurer.

The Alpha Phi society of the junior class was mine host in a genial way on Tuesday evening, March 13. Its annual banquet held at the Hotel Metropole was on a more extensive plan than heretofore attempted. As guests of the society were

Prof. Joseph P. Remington, Henry G. Trimble, Samuel P. Sadtler, Bastin, Frank G. Ryan, Frank N. Moerk, Dr. C. B. Lowe, and Actuary T. S. Wegland. Mr. Wegland responded to the toast "The Class of Fifty Years Ago," of which he was a member, and recalled to memory many of his classmates of familiar names.

Dr. J. B. G. Pidge delivered an entertaining address at the March Alumni social meeting. His subject was "From the Flowery Kingdom to the Equator."

The Distillers' and Cattle Feeders' Company is generally hated and feared by most of the wholesale and retail druggists of this city. While they are not anxious to purchase from this company, they are afraid to go elsewhere as they are inclined to think that they will lose their rebates, but since the Gottschalk whiskey rebate suit against this trust was tried in Chicago and a favorable decision has been intimated there has been more nerve infused into the dealers here. It is said a decision would have been given before this if the lawyers of the whiskey trust had not objected to a decision being given in vacation, so the judge reserved it until the next term of the court. It is generally thought that the decision will be in favor of the plaintiff and if such should be the case, as every purchaser of spirits hopes will be, the Distillers' and Cattle Feeders' Company will have to pay back a large sum of money. It is said the decision holds that if a customer is cut off by the "trust" he does not lose his rebates by buying from the opposition. There is a promise of a big fight in this city against the "trust," for a suit has just been begun by Koehler & Son, wholesale liquor dealers at 110 Front street, against the American Distributing Company, local representatives of the American Distilling and Cattle Feeding Company. This action grows out of the refusal of the trust to cash rebate vouchers for Koehler & Son, on the ground that the firm bought whiskey outside the trust in violation of the agreement. Besides this suit there is another one pending, which was brought some time ago. A few days ago there was a notice sent around to all the stockholders of the trust inviting all stockholders who are dissatisfied with the present management of the whiskey company to send their names and number of shares owned to the committee with a view of arranging for a meeting of the owners of the property and the appointment of a committee to act in their interest.

P. G. A. Weber, who for many years kept the drug store at Fourth and Susquehanna avenues, died on Monday, February 26. Mr. Weber was a well-known society man. He was a member of the Pblates Lodge, No. 527, F. and A. M., Corinthian R. A. Chapter, No. 250, Pacific Lodge No. 20, I. O. O. F., Leni Lenape Tribe, I. O. R. M., Liberty Council O. U. A. M., nineteenth ward sectional school board, anti-Cobden Club, Metropolitan Club and others. The funeral took place on the following Thursday afternoon and it was a very large one.

The death of E. A. Crenshaw, which was reported in the last issue of the Era, was a sad blow to all his friends. The death of Mr. Crenshaw will not make any change in the firm. This house consists of Charles Bullock, Sylvester J. Baker and John G. Bullock. It is understood that Mr. Crenshaw's interest has been withdrawn.

Charles Lippincott is busy getting out

new soda fountain designs for the coming year and they are more handsome than ever. He has just issued a pamphlet circular which shows the different styles of fountains manufactured by this house. This firm has removed its Chicago sales-room from 341 Dearborn street to 264 and 266 Fifth avenue.

Peter S. Brugh's pharmacy at Columbia, Pa., has been sold to Harry W. Zeamer.

Mr. Lind, of the firm of Schandein & Lind, has returned from a business trip to the south.

Fred W. Krollpeffer has purchased J. B. Reynolds' pharmacy at Amber and Dauphin streets.

Russell T. Blackwood has made his store at Fifteenth and Thompson streets one of the best appointed pharmacies of the city.

James T. Shinn, Ph. M., an old and much respected pharmacist, has been elected treasurer of the College of Pharmacy.

Edward McCandless has purchased the store at Sixteenth and Mifflin streets, which recently became the property of Harry Lee Barber.

A. Eugene De Reeves has established himself in the old Amos Yarnall store at Fifteenth and Market streets, a pharmacy of forty years standing.

A. S. Butz, of Kutztown, has bought the drug store of Dr. W. O. Higgate, 4202 Lancaster avenue, who goes into private practice in West Philadelphia.

French, Cave & Co. are working overtime and find it difficult to keep up with their orders on soda specialties, and compound extract of sarsaparilla.

One of the fine pharmacies which adorn North Broad street is that of W. H. Laubach, Jr., at Broad street and Grand avenue, which includes among elegant fixtures, a Lippincott fountain.

Walter F. ("Mizpah") Ware has purchased Mr. Rhoades' interest in the Elma Confection Co. and now has charge of the management of that concern in connection with his own business of rubber specialties.

The Apothecaries' Union has secured quarters down in the heart of the city. The building 610 Arch street has been secured and by the middle of this month it is expected that the union will be occupying their new quarters.

Dr. H. C. Watt is fitting up his new store under the new depot of the Pennsylvania Railroad Company at Broad and Market streets. This store is to be one of the handsomest in the city and is to have all the latest appliances.

The works of the Hero Fruit Jar Co., at Gaul and Adams streets, are again in full operation. Some hundred hands, glass blowers and helpers, who have been out of employment since June 30 of last year, have resumed their places with every prospect of steady work for the balance of the season.

Charles E. Hires Company is making preparations for a busy summer and has commenced sending its men out to all parts of the country. It is the intention this year to have about thirty men on the road outside of their regular district ones. A new store will be opened in Chicago, and there is a possibility that the company will purchase a bottling plant and do its own bottling.

John M. Maris & Co., in speaking of the business situation as applied to them, said a few days ago that their business

has improved very much since January 1 and their sales for the first two months of the year show a very gratifying increase of the corresponding period of last year. Their engraving and lamp shops which have been recently enlarged, are running to their utmost capacity, and they shall have to still further increase them in the very near future.

Liquid malt extract would seem to be very popular in this city if the large number of druggists who fill their windows with this article is a criterion. One leading Chestnut street pharmacy has an enormous display, the tasteful and artistically designed labels being very attractive. Perhaps the physicians are "on to" the fact that several fine brands are manufactured here. Or perhaps there is a good margin of profit both for maker and retailer; anyway we know of one prominent druggist who has quit rolling pills and expects to make more money extracting malt.

Robert C. Cadmus, of Twenty-first and Mount Vernon streets, can now boast of having one of the handsomest soda fountains in the city. It is different from the general run of fountains, and being designed to stand in the window, is carved and polished all round and presents a very attractive appearance from the outside. C. Lippincott & Co. are the manufacturers; the cost is said to be \$2,700. The apparatus is named the "Campania," having a capacity of eighteen syrups and six draught tubes. It is constructed of Mexican onyx, almost a pure white, with Breccia sanguine and French Grottoe trimmings. The roof is supported by eight elegantly carved columns, the space where the mirror usually is being left open to admit light from the window. Mr. Cadmus says he is prepared to meet an almost unlimited demand for frigid soda the coming season.

FROM THE SOUTH.

G. A. Vinson has bought out J. F. Beck at Clara, P. O., Atlanta.

The Southern Glass Co., Atlanta, which has been incorporated, has started its works.

J. H. McFall is contemplating building a new store on Marietta street, near Simpson, Atlanta.

U. H. Smith, of Phoenix City, Ala., has bought the Vernon pharmacy from Brannon & Carson, of Columbus, Ga.

G. P. King, of Cartersville, Ga., succeeds Budwell & Willet, on Mitchell street, near Mangum, Atlanta, Ga.

The Bridgeport Bottling Works, Bridgeport, Ala., has resumed operations after being shut down for some time.

D. W. Curry and Hammond & Lucas, of Rome, Ga., have each put in a very handsome Lippincott's soda apparatus.

H. M. Lee, Atlanta, is moving his store from the National Hotel building to the store corner Peachtree and Walton streets.

In the wholesale drug house of Lewis, Baillie & Co., Shreveport, La., an explosion of chemicals took place, setting fire to and totally destroying the building and stock.

The following traveling salesmen have been in Atlanta within the last ten days: A. G. C. Libby, of Beach & Claridge; J. F. Sprague, of Sharp & Dohme; S. P. Watson, of W. H. Schieffelin & Co.; R. P. Menard, of Irwin, Kirkland & Co., Decatur, Ill.

CHICAGO.

Chicago, March 10.—About twenty pharmacists met in Lakeside Hall, Thirty-first street and Indiana avenue, March 2, in response to a call to consider the Hayes plan to prevent the cutting of prices on patent medicines, explained by Messrs. Goetz and Sempill. No great alacrity in putting up money was manifested until the matter should develop further.

The schools of pharmacy seem to be well patronized this season.

O. F. Alex is about to leave the neighborhood of Woodlawn park.

Fifty-ninth street pharmacy, Knothe & Co., has been sold to Emil Thiele, "ex-senator."

Frank McIne succeeds the firm of Curtl & McRae, Sixty-third and Cottage Grove avenue.

Otto Cottzau and family are at present in California, possibly visiting the fair at the same time.

J. F. Carnegie, Sixteenth and Michigan avenue, is making arrangements for a trip for his health.

Albert Schreiner, of Michigan avenue and Thirtieth street, is about to move to South Evanston, Ill.

S. P. Herron has received news that his family horse, which he was wintering in the country, has died of heart disease.

Albert Ackermann, Halsted and Fifty-first, on bright days may be seen exercising his new trotting horse on the boulevards.

G. G. Shauer, State and Twenty-ninth streets, has been on a trip to West Superior, Wis., among the lakes "duck hunting."

E. Von Herman, Indiana avenue and Thirty-first, has taken out a building permit to alter and enlarge his premises on Thirty-first street.

Morrison, Plummer & Co.'s sundry department is new and finished in fine style, being now considered one of the most complete in the west.

There are many drug clerks out of employment and few vacancies to offer them at present. Nice weather will brighten up matters for "the boys."

H. S. Lester, manager of Knothe & Co.'s Forestville pharmacy, was called home to Salem, Ill., by the illness of his father, who died Saturday, March 3.

Frank J. Imes, of Grand Crossing, Ill., came in to select his spring sundry stock of Morrison, Plummer & Co. Mr. Ballard gave him a warm welcome.

Dr. T. N. Jamieson was charged with selling liquor without a license. The case was dismissed when Dr. Jamieson swore that he did not own the drug store referred to.

The mills and shipyards are once again at work in South Chicago, thus cheering the hearts of all the druggists and other merchants with the hope of a more prosperous business.

Mrs. A. E. Ebert had an operation performed, which was necessitated by her severe burning. She is not improving as rapidly as her friends would like, but full recovery is expected.

Mr. J. W. Rausch, of Rausch Bros., 284 Cottage Grove avenue, died Thursday morning, March 8. Cause, accident. He stepped on a broom handle when going down into the basement, injuring his head and bursting a blood vessel in the neck.

Curtl & McRae have been lavishing some of their world's fair profits on their store, thus enhancing its attractiveness. There is a new store booked on the opposite corner for May 1st.

Mr. F. H. Galtreth, representing Robert Stevenson & Co., in making his usual trip to Elgin, Ill., the last part of February, had just reached his hotel when he slipped and broke his leg. Quite fortunate that he holds an accident policy.

Sorrow & Kerntoff have opened a new store No. 540 Cottage Grove avenue at the intersection of Washington and South parks. Mr. Sorrow has been called to Dayton, O., leaving Mr. K. alone with the contract of opening the cosy store.

W. W. Swearingen, of east Sixty-third street, or Woodlawn park, had made arrangements to discontinue his world's fair store, but at the solicitation of his friends and patrons he will continue business at the old stand east of the Illinois Central railroad tracks.

Mrs. I. H. Ruby, who has worked so hard in the interest of women in pharmacy, has been suffering from rheumatism since the opening of the new year. Miss Gordon, her associate at the world's fair pharmacy, is now conducting a paying pharmacy in the new Marshall Field building.

C. A. Seamon, one of the Englewood druggists arrested in a recent raid on illegal dispensers of whisky, was fined \$50 and costs by a jury in the Hyde Park police court February 28. Seamon is not a licensed druggist, but has been doing business at 6438 State street since August.

In the Cook County Criminal Court Davis has also pleaded guilty to an indictment under the state law found by the grand jury for imitating and using imitations of the Apollinaris labels. The penalty for violation of the law is a fine of from \$100 to \$200, or from three months to one year imprisonment, or both. Sentence was suspended.

Dr. W. H. Carter, of San Francisco, was put in the Chicago jail two weeks ago on an indictment charging him with counterfeiting the trade mark of the Dr. Carter Medicine Co., of New York. C. D. Brown and E. N. Habersham, who were indicted on the same charge as Dr. Carter, were released on bail. It is claimed in the indictment that the three men have done an extensive business with bogus labels.

In the injunction suit of the Apollinaris Co. (limited), of London, England, against Charles T. Davis and other defendants, before the United States District Court for the northern district of Illinois, Judge Grosscup has entered a final decree perpetually enjoining the defendants from imitating the yellow Apollinaris labels and from in any manner pursuing a course of unlawful or unfair competition in trade calculated to injure the Apollinaris Company's business or reputation.

A. W. Fenner, Jr., of Providence, is making many changes in his store, and has placed with the Low Art Tile Co., an order for a \$2,000 fountain. He has used one for the last four years and is so well pleased that he has given an order for the larger one. Others placing orders with the Lows are J. H. McCorrison, Campello; P. F. Whalen, Webster; P. V. Joyce, Ballardvale; W. R. Jones, Frankestown, N. H.

COMMITTEES OF THE DRUG TRADE SECTION, NEW YORK BOARD OF TRADE.

Membership—James Hartford, of Schoellkopf, Hartford & MacLagan, limited; Albert Bruen, of Bruen Bros. & Ritchey; C. S. Little, of R. W. Robinson & Son; Samuel M. Moneypanny, of S. G. McCotter & Co.; W. H. Harer, of Tyley & Finch.

Legislation—Albert Plant, of Lehn & Pink; Frederick G. Meyer, of Meyer Bros. Drug Company; Geo. R. Miller, of R. Miller's Son Co.; Christopher L. Williston, of Charles Elzer & Co.; Andrew H. Rogers, of Rogers & Pyatt.

Arbitration—John Clay, of Parke, Davis & Co.; John A. Riker, of J. L. & J. B. Riker; W. E. Harer, of Tyley & Finch; Joseph Vebor, of Peck & Vebor; Frederick M. Robinson, of R. W. Robinson & Son.

Jobbing druggists—William S. Mersereau, of W. H. Schloffel & Co., chairman, and one representative from each jobbing drug house in the drug trade section.

Manufacturing chemists—Harry T. Jarrett, of Mallinckrodt Chemical Works; William A. Ramana, of the Rossier & Hasselacher Chemical Co.; B. H. Huttman, of Glantz & Huttman; Edward H. Kilder, of New York Coal Tar Chemical Co.; Howard Kirkland, of New York Quinine & Chemical Co.

Manufacturing petroleumers—Sturgis Coffin, of Ladd & Coffin; Theodore Klecksecker; Henry Dalley, Jr., of Lazell, Dalley & Co.; Bowles Colgate, of Colgate & Co.

Manufacturing pharmacists—Benjamin T. Fairchild, of Fairchild Bros. & Foster; Samuel W. Bowne, of Scott & Bowne; E. H. Mason, of Seabury & Johnson; E. Stoffregen, of Sharp & Dohme; Charles Kikore.

Importers of drugs and chemicals—John H. Stallman, of Stallman & Fulton; George Massey, of Lenman & Kemp; Theodore Welcker, of Merck & Co.; Francis H. Sloan, of Dodge & Olcott; John J. Riker, of J. L. & D. S. Riker; Bernard G. Amend, of Elsner & Amend; Victor Koehli, of Schulze-Berge & Koehli.

Importers of essential oils—George H. Olcott, of Dodge & Olcott; Carl Brucker, of Fritzsche Bros. & James B. Horner.

The standing executive committee of the section is as follows: Samuel W. Fairchild, of Fairchild Bros. & Foster; Am. H. Wickham, of Jamieson & Robbins; James Hartford, of Schoellkopf, Hartford & MacLagan, Ltd.; Thomas F. Main, of Tarrant & Co.; John M. Peters, of Frazier Tablet-Triturate Manufacturing Company.

W. R. Wattles, who has two drug stores in Providence, R. I., is reported to be financially embarrassed.

Work is rushing in the marble department at J. W. Tufts' soda fountain works, Boston, Mass. Onyx productions especially are in demand.

At the annual meeting of the Bagley Dandelion Compound Co., held at St. Johnsbury, Vt., Robert Mackinnon, E. H. Blossom, C. D. Bagley, J. B. Gage and Dr. T. R. Stiles were elected directors.

Here is a summary of the returns filed at the state house, Boston, Mass., by the Weeks & Potter Co.: Assets, machinery, \$5,000; cash, \$81,625; stock, \$156,662; miscellaneous, \$9,685. Liabilities, capital, \$200,000; debts, \$33,974; net decrease for year, \$220.

Hall & Lyon, of Waltham, Mass., and Providence, R. I., have purchased the old drug store of C. B. Burrington on Broad street, Providence. They will make many improvements, and run it as a branch of their Westminster street store.

Much excitement was caused in Providence recently by the reported failure of J. E. C. Davenport at the store occupied so many years by A. L. Calder. It is stated that he owes \$36,000 and that the store will be discontinued.

BUFFALO.

Buffalo, March 10.—Business was very bad during February. Not only were the retailers lacking customers, but the wholesalers confess that they have not had a worse month for years. In all branches of trade it is the same; nobody did anything. The general rule was to keep open and wait. The fact is that so many things are brought in under the head of luxuries in hard times that drugs and medicines belong in that category. The common people have no money to buy anything more than they are obliged to, and when they are sick they patronize the free dispensary. Still nobody complains. The druggist always keeps some trade alive and it is rare to find anybody going to the wall. There is prospect of a fair trade again and with it a slow edging out of the stagnation that has been reached.

Buffalo druggists have gone into trade authorship somewhat of late. They not only took a leading hand in the preparation of the new edition of the pharmacopoeia, but they are going into private ventures. Dr. John R. Gray, of the college of pharmacy, has just published a Guide to the Study of Pharmacognosy, which is likely to become a standard work on the subject. Dr. Long, of the college, has put out a second edition of "Long's Tablets."

Dr. Hill, of the college, has just been making a lot of tests of Niagara water in his capacity of city chemist. Some time ago the towns on the river below Buffalo complained that they were suffering from sewage from this city and threatened to bring suit for damages. So the board of public works got ready for them. The samples show considerable sewage just below the opening of some of the big city sewers, as might have been expected, but at Tonawanda there was no appearance of it, while at Niagara Falls it appeared again, apparently from some local cause. The test reaffirms the old idea of running water purifying itself in short distances.

The city office of bacteriologist, which was created only a year or two ago, has had some queer experiences, or rather the officials have. Dr. W. H. Bergtold, who first held the position, was one day horrified on examining his own sputum as a matter of exercise to find that it contained bacteria of tuberculosis. He at once repaired to the Saranac Lake Sanitarium, where he has since remained. It is now reported that he considers himself cured and is about to come home again. Dr. H. U. Williams, his successor in office, has now resigned and will go to Germany to study bacteriology.

The County Board of Pharmacy granted only one license at its second February meeting. Isaac Saylen, who is engaged at Herman Frost's drug store on Broadway, receiving full pharmacist's papers. There were four applicants examined at the first March meeting. One paper was written in German and the members of the board took a hand all round in translating it. One of them who wanted to call *Fluessigkeit* "physic" was promptly discharged from the committee on translation, and the member who tries to pass for a native German was given the say. The chair thought that the original text was good enough for official purposes, whether it was turned into English or not. George Reimann, of the board, is somewhat out of health and has gone to

Jacksonville, Fla., to recruit. He was getting ready to sell his store, but has concluded not to at present.

It is quite a neat trick that some of the city druggists have adopted for attracting attention to their places. They post in their windows lists of goods, patent medicines and other well-known preparations, showing great reductions in them. An unsophisticated observer would imagine that there was a war going on that threatened to upset the whole trade. The fact is, though, that these particular articles are selected from a list that is not protected by any agreement and which anybody is at liberty to sell at his own price. The dry goods stores have lately got hold of a few brands of dentifrices and cosmetics and are selling them at cut rates, but the protected articles are held as firm as they ever were.

Speaking of protection our druggists who have lately been in Canada bring back word that the trade in Hamilton has set up a plan of its own, which appears to be satisfactory at home if the proprietary people do not admire it. They have organized the Hamilton Chemical Company, which is manufacturing a full line of goods to run in opposition to advertised preparations. The concern is a stock company and sells its goods to members only. In this way outsiders are unable to get hold of anything in the line and it is easy to prevent price cutting among themselves. So far our druggists look up on the scheme with favor, but it is doubtful if they would go into anything of the sort.

There is another movement in Canada which is distinctly in advance of us, however the Hamilton idea may be regarded. Druggist Clark, of the City Arcade of Hamilton, who was for several years president of the Ontario Board of Pharmacy, went to St. Catherine's lately with a new bill making it illegal for people without druggists' licenses to sell proprietary medicines containing poisons. This is a step in the Canadian plan of shaping legislation beforehand. There is a parliamentary election not far off and this bill is shown to the candidates and the support of everyone obtained if possible before election. The present Canadian law on the subject is similar to ours. It forbids the filling of prescriptions or making up of doses by non-licentiates, but it permits anybody to make up any sort of nostrum, put his name on it and sell it as a proprietary medicine. In case of cough medicines where opium is pretty sure to be present, this proposed law has especial pertinence, for certain mixtures in this class could be named which are as strong with opium as ordinary laudanum.

W. D. Balliett, druggist of Middleport, failed last month and made an assignment to W. H. Garland, of that place.

T. V. Bauer, a college graduate, has bought the Genesee street pharmacy owned by the late A. E. Romer, whose death was chronicled in this column some months ago.

The Tonawanda store of William Coulson, the Buffalo druggist, took fire one night lately and was damaged about \$1,000. The origin of the fire is unexplained. The loss is covered by insurance. The store is occupied by F. L. Hill.

The local mineral water people are making some headway in business and will flourish as soon as business is good generally, for it is a fact that there is a

marked increase in the popular demand for mineral waters, especially for tabular.

Thomas Talbot has sold his Rhode Island street drug store to C. W. Turker and has moved his stock to the drug store on Forest avenue, formerly occupied by Burnham Bros., who located in Jamestown.

The Beta Phi Sigma society of the College of Pharmacy held its annual banquet on March 8. Plates for about seventy-five were ordered. Many of the graduates belong to this first Greek letter society of the college.

Udell S. Braman, manager of Gregory's Niagara street pharmacy, is just back from a short trip to New York. It is so unusual for the average drug employe to get away from his bottles and mixtures in winter time that this should be set down as an event.

Health Commissioner Wende is complaining of shortness of help, as four men in his department are off sick. As a rule, though, the city is quite unusually healthy, having escaped the grip again very much as last winter, when other sections suffered from it severely.

Chairman Smither, of the County Board of Pharmacy, is our most active alderman and a very useful member. He is chairman of two important special committees, one on municipal lighting and one on telephone rates. The former will report in favor of spending \$100,000 on a new electric light plant to be run by the city.

Our proprietary people are not nearly as favorable to the bill in the state legislature providing for the publication of formulae on the packages as the general druggists are, and it is said to be calculated to kill the morphia business, but many say it is not as objectionable as last year's "strike bill," as it was called, which made every patent medicine man the prey of a board of examiners.

Dr. Vandenberg, the chemist, is back into experiments in gas for fuel and illuminating. Some capitalists from Olean have set up a sort of factory down among the city gasometers on the canal bank and have for some time been at work on a combination of water, oil and steam, which they hope to dignify into cheap and serviceable gas some day. They have lately called in the aid of Dr. Vandenberg and he now has two cylinders full of the gas in his laboratory for analysis. So far he expresses no opinion on its merits.

The college of pharmacy is bound that its students shall tackle everything of practical value that can be brought into a class or lecture room. Dr. Gregory lately gave a lantern-slide exhibition of difficult prescriptions which he had gathered together in his experience, thus bringing into an hour an amount of this sort of perplexing material that would take the practitioner a long time to accumulate. The senior class in the medical department will attend these exhibitions hereafter. The list of incompatibles, poisonous combinations and obscure mixtures brought to the light was very great. The recent case where a victim was killed through a mistake made by a physician was referred to. The druggist was also careless, or he might have detected the error and saved the life. The doctor was made to pay damages, and druggists confess that had the man who put up the prescription been proceeded against he would also have had to suffer.

CINCINNATI.

Cincinnati, O., March 10.—The druggists of this city, and in fact all over Ohio, are considerably perturbed over a proposed amendment of the pharmacy law, which will soon be brought up in the Legislature at Columbus. Numerous attempts have been made to amend the Ohio pharmacy law so as to permit of the interchanging of certificates and the registration of men having been in the business a stipulated period without examination. All these attempts have been flat failures and those who are unable to pass an examination have been unremittent in their labors to have the law made more lenient. The defeat of these various measures is attributed to the litter and almost ceaseless combat waged by the members of the Ohio State Pharmaceutical Association. Now comes Senator Abbott, of Morgan County, with a bill, which will probably please one of his personal friends, who has been "turned down" by the Board of Pharmacy.

The pharmacists throughout the state are on the alert, however, and an organized fight will be made to defeat the passage of Senator Abbott's little bill. A circular sent out by the committee on pharmacy of the O. S. P. A. is presented on an editorial page of this issue:

There is quite a lively scramble among the local druggists for the position of government drug inspector at this port. The position will soon be vacant and is at the disposal of the appraiser of the port, and the new man must be an administration Democrat. John Bauer, the druggist at Sycamore and Milton streets, is the present incumbent and a half-dozen "pill rollers" are ready and willing to succeed him in the service of Uncle Sam. The most prominent candidates spoken of thus far are Joseph Hall, the druggist at the City Hospital, and Ed. P. Dehner, the clever young pharmacist at Seventh and Vine streets.

There will be a number of changes in the faculty at the College of Pharmacy when the fall session convenes. William Simonson has been called to the materia medica chair and will also continue as assistant to the chair of chemistry.

The preliminary movements have been made toward starting a college journal, the columns of which shall be devoted to local matters of interest to the School of Pharmacy. The various members of the faculty will contribute to the periodical, which will be issued weekly. It has not yet been determined who will act as editor-in-chief of the new publication.

There seems to be a unanimity of opinion among local retailers that business is picking up rapidly. Most of the down-town druggists are buying quite liberally at present and commercial tourists report their sales as much improved. The largest dealers in sundry novelties are laying in large stocks, and matters are again assuming their time-honored shape. Apropos of the present state of business it may be stated that there have been comparatively few failures in this city. The traveling representatives of the local wholesale houses report increased sales and the force of itinerant vendors of drugs and sundries is much larger than one month ago. All the city salesmen representing drug houses and allied lines of trade aver that matters

are on the mend and this staid old town will soon be in line again as a rattling business burg.

It is quite the bustling junior partner of the Hale & Justis Company, talks of buying a bicycle.

Joseph Fuldner, the Avondale druggist, who has been seriously ill, is reported to be mending nicely.

Local druggists complain of a scarcity of sponges in this market. Rock Island sponges especially are very scarce.

F. A. Grossman, the well-known druggist at Cleves, O., is now studying medicine at the Ohio Medical College in this city.

William Simco, a popular resident of Mt. Adams, is now connected with the drug house of John C. Otis & Co., at Sixth and Vine streets.

Joe Lambert, the energetic druggist at McMillan street and Park avenue, Walnut Hills, now has one of the best stocked pharmacies on the hill.

Peter Herman, the Cedar Grove pharmacist, was one of the jurors in a big will case in the Common Pleas Court during the past week.

The outlook for a large attendance at the spring session at the College of Pharmacy is very flattering. Some radical changes regarding the course of study will likely be made.

John Keeshan, the druggist at Sixth and Walnut streets, is selling the old fixtures of his store at auction. The fixtures are made of walnut, but were painted white during the war.

Wilmot Hall, the guiding spirit of two of the leading down-town pharmacies, is still sojourning in the south. He was last heard of in Southern Mississippi. His health is rapidly improving.

Joseph Hall, who fills the dual role of druggist and storekeeper at the City Hospital, has asked the board of trustees for an increase of salary. The request will be acted upon in the near future.

There is considerable talk in local drug circles about a well-known pharmacist getting sold in the purchase of a drug store. "Tis said that he paid \$4,500 for a store the true value of which was not over \$1,800.

Otto Rauchfuss, of the Standard Drug Company, is a noted patron of art and music. One of his daughters, who is now in Europe, is one of the best vocalists in this city. She is now taking a course in Paris.

George Kyllus, the pharmacist at Liberty and Denman streets, has one of the most extensive libraries in the West End. George now spends his time reading instead of gazing on the over-the-Rhine blackboards.

Ed. Gray, the popular pharmacist at Fifth and Main streets, is having his store renovated, after which he expects to do some up-to-date remodeling. A new soda fountain will adorn the front of the store.

Dr. E. A. Chaten has removed his drug store, from Covington, Ky., to the corner of Pearl and Lawrence streets, this city. This corner is a time-honored location as there has been a drug store there since the late war.

All of the slot machines have been taken out of the drug stores in this city by order of Chief of Police Deitsch. This knocks the envelope and stamp machine in the head and gives more labor to the now overworked clerks.

Dr. John M. Studder, the aged physician who died in this city a few days ago, was at one time actively identified with the drug business. The deceased left quite an extensive estate.

It is said that W. A. Tyrne, the Clifton druggist, who is one of the youngest pharmacists in this "neck of the woods," contemplates matrimony. The bride is said to be one of Mayaville's, Ky., fair daughters.

The host of friends of Edward P. Dehner, the druggist at Seventh and Vine streets, are urging him to make the race for Police Commissioner. It is thought he stands a good show of landing under the wire first.

Albert Melnitzer, the Cumminsville druggist, will have a beautiful place of business when his new store is completed. The fixtures are of the most modern pattern and cost something in the neighborhood of \$6,500.

Harry Watson, the popular clerk in M. F. Keeshan's Walnut Hill pharmacy, was seriously injured one day by the explosion of a bottle of creosote. Watson's hands and face were burned, but fortunately he will not be disfigured.

There is some talk of a new drug store on Price Hill, and Madame Rumor has it that the owner of the establishment will be one of the most prominent down-town pharmacists. The store will be located on the new electric street railroad.

Billy Salt, a well-known drug clerk, is again to be seen behind the prescription counter at Evans' Pharmacy, corner Fifth and Walnut streets. He was in the railroad business for a short period, but concluded to stick to his first love-making pills.

Frank Meyers, the druggist at Central avenue and Everett street, has just purchased a nice horse and buggy. He says he can get to his store from his home in Mt. Auburn now in ten minutes, while it used to take him a half hour by the street car.

Dr. Charles F. Woche, the druggist at Seventh and Main streets, is an avowed candidate for coroner on the Republican ticket at the next convention. Incidentally it may be stated that Dr. John C. Otis, who stands "aces up" at the Young Men's Blaine Club, would make a good coroner.

Dr. Louis Sauer, the physician-druggist at Baymiller street and Central avenue, now sports a lovely set of atmospheric-disturbing whiskers. The doctor is very popular in his ward and has often been asked to run for various offices, but he says he is contented to confine himself exclusively to his business interests.

During the past few weeks a number of our pharmacists have been lending helping hands to suffering humanity by filling prescriptions free of charge for the unemployed and the willing workers. As most of these people are procuring work from the city, however, this charitable practice will soon be uncalled for.

The Stein-Vogeler Drug Company has been granted a contract for furnishing the City Hospital capsules for the next six months. Contracts for other supplies have also been let to a number of other leading firms in this city. The outcome of the Howell-Turner scandal is being watched closely by druggists all over the city and the pestle jammers naturally take quite an interest in this institution.

CLEVELAND.

Cleveland, O., March 9.—The love feast of the C. P. A. on February 20, which, owing to its programmed en famille character, was given merely casual mention in the preceding issue of the Era, was such a hilarious affair that even the sparrows about the precincts of the Forest City house were intoxicated with the spirit of the occasion. Louis Hopp's verbruederungsdeie was given a baptismal reception which will not soon be forgotten and never forgiven by those who incidentally fell victims to insidious temptations. They say there is no joy complete without woman. Sentimental bosh! The pharmacists in stag social assembled got along "swimmingly" without the froufrou of evening dresses; in fact, they got along better in every way, ceremoniously and unceremonially. In planning this banquet demasque—tbis is Lenten for the other word—Mr. Hopp was diplomatic in every particular. He made allowances for a spontaneous eruption of mirth and fun chastened and chained by hard times abnegation; for a speedy assimilation of the estranged guests with the accompanying bouting features; for effects and after effects and after-the-ball-is-over contingencies. Thus, the better halves were necessarily voted to stay at home and retire early, to put the clock back six hours and be prepared "along between dusk and dawn" for Samaritan exigency. In the last number of the Era the number of guests was given at about two score. It should have been three score, as about thirty decided against their previous decision at the eleventh hour. The menu embodied Billy Akers' best epicurean efforts; there was no regular wine and liquor list appended, the druggists modestly reserving such matters for extempore arrangement. The most luscious part of the menu was the toasts. Whoever arranged them could serve as imperial court clown without rehearsals. Bogus telegrams were read from the country's upper servants. One such on a sending blank was from Grover Cleveland, reading: "With profound sorrow I am grieved to send my regrets. I am confined to the house with a swelled neck. Mr. Schellentrager will speak in my behalf." E. A. was thunderstruck, for he wasn't "on."

PHARMABANQUET BURRETTAS,
KEYHOLE GLIMPSES.

Ralph Cobb's strong will power apparent; blush of excitement on cheek, but immaculate shirt front at 2 a. m.

D. E. Steuer, tongue-tied about 1 a. m.; looks as if suppressing some violent emotion; also smitten with hicough.

Wm. Bodebender was greeted by first wake rooster; barked at by sundry dogs; directed home by milkman's route.

H. H. Flandermeyer will report for duty as some future date; is fasting now to reconcile his religious proclivities.

H. W. Stecher, advertising for lost latchkey; said to have asked a street lantern for a light on his way home.

Lou Hopp was the lion of the evening, a limpish, sleepy-eyed kitten after 12 p. m. His intrigue had come home to roost.

Eugene R. Selzer was not compelled to sleep in the woodshed; parlor sofa good enough for him; sent for a new hat in the morning.

Fred. L. Gegelein claims rescuing fatigued brethren from under the table; sending a second-hand clothing dealer to

several members next day; no valuables lost (a druggist is legalized to caution).

C. W. Benfield, a jolly good fellow; left his profanity bottled up in laboratory; but exploded with vehemence in the morning.

J. W. Deutsch, seemingly proud of his Irish name, for he proposed innumerable red-eye nightcaps; reported down with grip on 21st.

W. H. Frieseman came doctored for the occasion and finds wines a pleasant antidote, but the alloying process upsets his calculations entirely.

G. L. Hechler gave the owl car conductor a dollar to wink the other eye; both coats tails intact; wore hotel napkin when dinner discussed by his spouse.

John Lehr discarded all Lenten reserve; disporting as the German kirmess; cried, "bier hier, oder ich fall um," but fell before beer reached him; not fatal.

Philip Lehr tipped the waiter after each course like "ze haute noblesse," then had to borrow a nickel for car fare; apparently mild case, but two stout, will-powered legs.

Edo. Claassen—February 21 doctor's bulletin: Slowly convalescing; called for brandy and soda; 6 p. m. February 21, found in cellar alongside case of beer; hopeless case.

Thos. E. Sords ate as though Lent was only for poor people; claims he slipped on a banana peel when he tobogganed down stairs; got home without being ticketed through.

G. W. Voss, the cynosure of the German-American brethren while the pokals chased each other fast and furious; compassionately smiled at later. Got home all right on the 21st.

Daniel Myers denies going to bed with his boots on; says a number of the fraternity had to be put to bed by the hotel people, while he sobered up running after street car going home.

Carl Krebs thinks he can sing but can't; may succeed in oratory with wine-whetted courage; was extremely schmolli and dufzfreundlich when starting on his round-about homeward journey.

J. J. Riegelhaupt, amusing little cuss; malicious at discomfiture of others; entered his drug store on way home for medicated nightcap, and was almost arrested for house-breaking.

Charley Godman imbibes after each toast, milk, butter, dry, and drink toast, before, and during them, but a jury could not decide whether intoxicants; may be only stimulating; denies taking a quiet sneak.

E. A. Schellentrager, ein urgemetliches haus, burschikos up to midnight; philistroses a little after; Katzenjaemmerlich anzusehen about 3 a. m.; haeringungschlugen little after, then fortified to see it out.

Fred W. Stecher says he was not guilty; when thoroughly initiated and about to depart asks bell-boy where he is at, however; becomes suddenly color blind and mistakes street car, and lands about eight miles from home.

Henry Eechberger, devilish sly behavior; careful of his dignity; sips nonchalantly, but gets there; extremely attentive to every pop, then quickly draining his glass; never refuses; disappears suddenly; no farther news.

George R. Robinson laughs himself into fits over the boiling fun; signs of early dissolution; anxious to introduce monthly banquet features, illuminated by a quar-

terly "whopper," but the proposition strikes a snag in his throat.

John Gleim eats sparingly of salted entrees only; gets outside of \$5 worth of wet goods, seemingly; very pallid at midnight; mumbles and murmurs and scares the chambermaid and two bell-boys; steps on other man's corn, breaks a pane of glass and falls asleep in a hack; no news from home.

Frank C. Oster can eat hoghead cheese, steamed prunes, chicken salad and suspicious hash all in one; stomach of giant; not particular as to order of menu; could start with ice cream with beer washdown, liquor top-off, punch chaser; no secrets divulged at home, so is really hero of occasion.

Arthur F. May looks as if he had been there before; chipper and dapper as a major, but little top-heavy; called for spatula when ice cream was served; other absent-minded symptoms such as wearing other man's hat, suspicious odor on return from certain place; found keyhole when assisted by passer-by.

Frank S. Carroll held on, literally and figuratively; did not eat ice cream with his knife; pocketed not more than six oranges for wife or someone dear; did not tell lies, only a gross untruth when said sober as a judge, but did not budge into every hallway at the approach of a patrol or undertaker's wagon.

George R. Hoehn behaves as a Y. M. C. A. member should; seemingly ill at ease among such worldly proceedings, and exchanges ocular conversation with partner Schellentrager which, interpreted by Dan Myers, means: "E. A. you schwerenoether, you brought me into this; the punishment will fall on you; oh, mamma, forgive your erring son."

To individualize farther actions on, before and after the banquet seems preposterous; to itemize them would be grotesque. Suffice it to say in conclusion that every attendant guest contributed his mite of fun, the mites being abnormally unequal, of course. That the reunion was a well-rounded success, in every way conducive to good-fellowship and closer approach in a social and business way; that many patres familias absented themselves early and in "good shape," as behooves devout husbands and fathers, especially during Lent; that whoever stayed it out did so from unselfish motives; that whoever attended did so through a commendable, laudable sense of fraternal union, with a view to generalize intercourse, improve opportunities, abjure clannishness and retire hard times moods, ennui and pique for the nonce at least. The C. P. A. in special committee assembled, interdicts reproduction of the banquet incidentals; it also cautions laymen against reading them. They are by and for C. P. A. folk exclusively.

Toledo Licorice Works, Toledo, burned. Loss \$20,000; fully insured.

Beidler's drug store at Canton was raided by burglars recently.

O. W. Hogue, formerly a druggist at Garretttsville, more recently of Ashtabula, died of consumption.

The assigned assets of the Dietrichs Oil Co. have been ordered sold by the Probate Court upon a request of the creditors.

Dr. Howard A. Kelley, of Johns Hopkins University, delivered an address before the Cleveland Medical Society March 9th.

By a decision of the circuit court the Goheen Paint Co. of Canton, is to be dissolved.

The Benedict Medicine Co., of Norwalk, are making a great splash with their "Itogo" remedy.

John Spear, of Lima, president of the Shawnee Oil Co., died suddenly at Bryant, Ind., aged 65.

The American Medical and Surgical Society of Ohio is a recent corporation. Origin, Cincinnati.

The Palmer Bros. Co., of 121 Water street, are doing quite well with their drug trade specialties.

E. W. Emde, a drug clerk, has been fined heavily and sent to the workhouse for abusing another man's horse.

Dr. W. T. Corlett will be the local representative at the International Medical convention, in session at Rome, Italy, March 5 to April 5.

The president of the Ohio Liquor Leagues claims to have the assurance of every legislator that no liquor legislation will be enacted at the present session.

The Dayton Labeling Machine Co., Dayton, capital stock \$25,000, incorporated. Like the Hiles Slanting Spout Co., of this city, they claim to fill a long-felt want.

Owing to the presence of smallpox in several Ohio towns the local sanitary office proposes to subject the inmates of boarding, lodging and apartment houses and hotels to vaccination.

A shabby-looking fellow, with a superabundance of hard times nerve, obtained \$25 worth of drugs from Heller & Gouvy upon an order to which a hospital doctor's name had been forged.

Senator Brown's vinegar bill, now before the legislature, prohibits, under heavy penalties, the use of lead and copper, and sulphuric and other mineral acids and their compounds heretofore employed in coloring.

Hon. Louis P. Ohliger, the Wooster druggist, is making many friends in this city through his connection with the Internal Revenue Department as chief. Mr. Ohliger has been identified with the Ohio drug trade for over forty years.

Members of the Royal Arcanum at Oberlin caused the arrest of druggist J. M. Gardner on the charge of murdering Noah Huckins for the sake of obtaining the insurance on his life, and subjected him to a public trial. The whole affair was a mockery, yet it caused a widespread sensation.

The dull times has decided several retailers to sell, but buyers seem to be scarce. Would-be proprietors are holding back for want of confidence in the future, and speculation buyers demand too many concessions and sacrifices. Sommers' pharmacy, on Pearl street, is among the offerings.

E. A. Schweninger celebrated his 44th birthday anniversary February 22. His family had been on the quill vive for the event and agreeably surprised him with a patriotic gift—a fine sliver flag to henceforth float over his Glenview retreat. In the evening a number of friends were entertained at luncheon.

Some time ago W. F. Joy, then a member of the Glidden & Joy Varnish Co., of this city, sued in a claim against the company for \$20,000, allegedly due him as profit and salary. The company, which has since changed its name to the Glidden Varnish Co., lost the case and on March 2 filed a petition in error in the Supreme Court.

PITTSBURGH.

Pittsburgh, March 10. One of the chief subjects of discussion in local drug circles just now is the complications which have arisen over the troubles of the Cuticura soap people in trying to squelch their competitors, or rather, their imitators. For some time there has been on sale a close imitation of Cuticura here, known as "Curative" soap. It is understood to be made in Lancaster, Pa., by the same firm which manufactures "Buttermilk" soap. It sells for about \$9 a gross to the trade, and is a close imitation of its established competitor in the boxes, wrapping and coloring, and with nine out of every ten buyers would be mistaken for the original article. The reports of buyers brought consternation to retail sellers, who could not understand why or how they were being so fearfully outsold. The new product was sold by the cut-rate people for ten cents a cake, or three for a quarter. The manufacturers of Cuticura soon heard of the interlopers, and secured an injunction against the Lancaster manufacturers and all dealers in the state. Printed copies of the court decision and circulars have been scattered broadcast through this region, and the new article has been withdrawn from sale, at least so far as can be learned. The retail dealers in the original soap are also making a complaint on the ground that there is nothing in it for them. When the department stores and other cut-rate dealers knocked the bottom out of prices many retailers quit handling it, but now the price has been raised 10 per cent; but it does not seem to benefit the retailers, and although they have largely taken up the sale again, it may decline. It is claimed the only benefit of the new prices accrues to the jobbers.

The Wholesalers' Association held their regular weekly meeting on the 19th inst. Their sessions are largely devoted to local trade matters, but the proposed change by Congress in the tax on whiskey was discussed at considerable length. A member of the firm of W. J. Gilmore & Co., wholesale dealers in drugs and liquors, said: "We have taken no definite action, because no one seems to know 'where he is at.' So far as known here, the matter in the United States Senate is yet unsettled, but the impression is that the internal revenue tax will be increased to \$1.20, or thirty cents more than is now being paid, with the increased bonded period also provided for. It receives opposition for one reason at least, which is that it requires so much more money to carry the same amount of goods. At any rate, dealers here are buying heavily in anticipation of the increase going into effect. The Pittsburgh district is largely interested from the fact that, excepting Kentucky, it is the largest producing region in the country."

The Pittsburgh Paint and Drug Club held their monthly meeting and dinner at the Hotel Duquesne on Friday, February 16, M. B. Suydam presiding. C. F. Welis, Jr., A. C. Henderson and W. J. Gilmore were appointed a committee on nominations. They will report at the next meeting, when officers for the ensuing year will be elected.

James F. Goldaine is successor to James Kerr, Jr., at the corner of Smithfield and Sixth avenue, he having bought out Mr. Kerr. The latter gentleman was closed

up by the sheriff about the holidays, but made an arrangement with his creditors whereby he was enabled to resume. Later he went out of business again, and has not yet re-located. Mr. Goldaine is a Connecticut man by birth, but was associated with Mr. Kerr for eight years. He is eminently qualified for the new position, and has begun well by providing several improvements, which make his place more attractive. He put in some large plate-glass display windows and changed the name of the establishment to the "People's Pharmacy."

Lynn B. Hughes, of the drug firm of Rankin & Hughes, 5100 Penn avenue, is among the recent victims of small-pox in this city. He was taken to the municipal hospital and is recovering rapidly as his case was not malignant. Three other cases were reported a week ago. The cases are all quarantined.

The A. C. Henderson Drug Co. are erecting a new five-story brick building on Seventh avenue, Pittsburgh, to replace the structure that was burned. The contract calls for the block to be finished by March 1, but it is not likely that it will be done by that date. The firm are managing to occupy a part of the first story but are in very cramped quarters. They have a frontage of 24½ feet on Seventh avenue.

Dr. C. N. Van Sickle, of Oakdale, was tried before Judge Ewing on the 20th inst. for violating the pharmacy law in compounding medicines without being a registered pharmacist. The prosecutor was Louis Emanuel, the Second avenue druggist, representing the State pharmaceutical board. The evidence was that the doctor and his wife own drug stores at Oakdale and Munhall and manage them without the certificate from the board which the law requires. Dr. Van Sickle's defense was that his wife owns the drug stores and he only compounded medicines prescribed by himself.

In his charge to the jury Judge Ewing tore the pharmacy act to pieces and said he did not believe it was constitutional. It was not, he said, designed so much to protect the public as it was to protect druggists and to create a monopoly in the drug business. He pointed out the inconsistencies of the act, one of which is that while it creates an examining board to pass upon the qualifications of applicants for certificates as pharmacists, it does not say what the qualifications of the examiners shall be. Under it a person who knows nothing of pharmacy or chemistry would be competent to act as an examiner. By a literal reading of the act doctors would be prohibited mixing the medicine they give their patients, something that is done by them every day.

The jury did not require much time to consider the case. Dr. Van Sickle was found not guilty, but ordered to pay the costs. This verdict was rendered because the law as it stands is against the doctor and because the prosecutor was acting in his official capacity when he brought the suit. After the jury had retired Judge Ewing and Mr. Emanuel held a long talk on the act and the judge still held to the opinion that it is unconstitutional and not framed as it might be for the protection of the public against incompetent pharmacists. Mrs. M. E. Van Sickle, the doctor's wife, will be tried for managing a drug store without having a registered manager's certificate.

CORRESPONDENCE.

We accept no responsibility for the views and utterances of our correspondents. Contributions must carry full name and address of the writers, which, however, will not be published, if so requested. Copy should reach us ten days in advance of date of issue.

NO CAUSE FOR ALARM.

Chicago, March 5, 1894.

To the Editor:

The reply of Prof. F. M. Goodman, dean of the Chicago College of Pharmacy, to Mr. Nicholas H. Martin's comments upon certain aspects of pharmaceutical affairs in America betrays such uneasiness lest some one should imagine that he, Mr. Martin, really meant to poke fun at the college which Prof. Goodman so ably represents, that I am moved to assure him that there is no cause for alarm.

Prof. Goodman evidently thinks that if he should fail to convince his readers that the quotation he quotes from Mr. Martin's address was directed against Illinois College of Pharmacy, then said readers would have no alternative but to conclude that Chicago College must be the target, especially as Prof. Goodman readily recognized that at least some of the pictures drawn by Mr. Martin do resemble the features of that school. He experiences no difficulty in demonstrating to his own satisfaction that Illinois College of Pharmacy must be the college referred to in one quotation given by Mr. Martin, and at the same time that Mr. Martin received his inspiration from the dean of that institution itself. That these two propositions are rather inconsistent with each other does not seem to have occurred to the professor.

The quotation mentioned as given by Prof. Goodman is as follows: "Crude and raw students with as little as fifteen months' practical experience, and being under age, having been granted diplomas. The dean (sic) of one college claimed that every American college is doing the same thing."

Then Prof. Goodman declares: "As a heritage from our great forefather we cannot tell a lie." And when the gentleman (Mr. Martin) speaks of pharmaceutical journals admitting the existence of the evil, although some of them hedged, but that it was mentioned as a significant fact that those journals were the organs of the college (Here Prof. Goodman's pen refused to add the letter s to complete the word "colleges" used in Mr. Martin's quotation) complained of, he brings things down to a fine point, for there is but one college of pharmacy in Chicago which publishes its own organ."

Prof. Goodman, dean of the Chicago College of Pharmacy, indignantly exclaims: "Does Mr. Martin really believe that every American college is doing the same thing because one disgruntled dean told him so? He evidently fell in with the wrong dean to get correct information. If Mr. Martin had called upon the dean of this college (Prof. Goodman himself) instead of being taken in by the dean of some other college, etc., etc."

Now, really, if Mr. Martin did not fall in with Prof. Goodman, that fact alone does not seem to justify Prof. Goodman in falling out with Mr. Martin.

But I hasten to relieve Prof. Goodman's mind. I am quite confident that Mr. Martin is firmly convinced that if there is anything under the sun of which every American college is absolutely innocent,

they are certainly innocent of "doing the same thing." So far as the colleges of pharmacy are concerned they are with all their might and main doing things as differently as possible. Furthermore, the conclusion that Mr. Martin's quotation referred to some Chicago college is not unavoidable, as there is no indication whatever, directly or indirectly, connecting it with Chicago; nor does it follow because Mr. Martin did not call upon the dean of the Chicago College of Pharmacy that he must have been "taken in by the wrong dean." Finally, there is internal evidence in Mr. Martin's own address, as published in the Era of January 15th, which points strongly to the conclusion that he did not obtain his information from any kind of a dean. The internal evidence to which I would refer Prof. Goodman is Mr. Martin's own plain and direct statement, which the professor seems to have overlooked, but which shows that some state board report had said that somebody else said what Prof. Goodman says that Mr. Martin said. Here are Mr. Martin's words in his own way: "I quote the following from a report of a state board of pharmacy." Then follow the quotations from said report containing a reference by the reporters to some "correspondence with the Conference of Teaching Colleges of Pharmacy of the United States, in which are pointed out specific instances of laxity, such as crude and raw students with as little as fifteen months' practical experience, etc."

Everyone acquainted with American pharmaceutical events will see that Mr. Martin had the ill fortune to be "taken in" by a report dealing largely in reminiscences, for the Conference of Teaching Colleges of Pharmacy ceased to exist in the year 1885, and the particular college which furnished the text for the correspondence referred to, has also been extinct, so these many years. And as to the two colleges at Chicago, the Illinois College of Pharmacy was born in 1896, and while Prof. Goodman might argue that this "brings things down to a fine point," for prior to 1885 there was "but one college of pharmacy in Chicago which published its own organ." I am glad to be in a position, having been the dean of that college and editor of its organ at that time, to testify that the Chicago College of Pharmacy was then entirely innocent of "doing the same thing." Prof. Goodman, of course, is able to speak for it now. And as I am writing this partly to relieve Prof. Goodman's honest solicitude about the good repute of his neighbor, I will add, officially, that the requirements for graduation in Illinois College of Pharmacy are explicitly stated in its catalogue and have not been deviated from.

Prof. Goodman's selection of a text for himself is admirable: "O, wad some Pow'r the gittie gie us to see oursels as ithers see us!" If the choice was made in his official capacity he could not have succeeded better.

Had Mr. Martin done me the honor to consult "the wrong dean" I should have done my best to convince him that the peculiarities he had noticed in the American pharmaceutical world do not truly represent the status of our craft any more than the Canadian thistle represents our vegetation.

OSCAR OLDENBERG.

A PROTEST FROM MR. HOGAN.

To the Editor:

My attention has just been called to an editorial in your issue of February 15th, commenting on the troubles of the pharmacists at this end of the city with the saloon keepers' association. You not only cast unjust reflection upon us, but show a lamentable ignorance of the facts wholly inexcusable, as your correspondence could have obtained the facts just as easily as to use the garbled newspaper statements.

Your advice is all right, but we understand the laws here and the conditions we have to meet perhaps as well as you. We may not be as holy as thou, or as your correspondent, but when it comes to allegiance to the laws of the land, I think we will average up with the balance of our fellowmen.

Now for the facts: We have in Englewood, a strip about three miles long and one mile wide, which is known as the "Prohibited District." Trade has been dull with the saloon men on the borders, and some of them thought the druggists were hurting their business. They held a meeting, appointed a committee, hired a sleuth, presented their case to the powers that be, the city government furnished another sleuth and the two creatures started after evidence.

Now as to the conditions: We have a state law requiring a license fee of \$50 for the sale of intoxicants, also granting municipal authorities the power to grant permits to druggists to sell for medicinal, mechanical and sacramental purposes. The city government recognized this law by issuing permits requiring registration of all sales. We all have the permit and the book of registration. All the requirements are carried out fully.

You seem to have selected me as a "bright and shining light"—save the mark—because a member of the State Board of Pharmacy was "pulled" with the others. The charge made in the warrants was selling spirituous liquors in quantity less than a gallon, without a license.

The saloon men claim this is a prohibited district, and that the city has no right to issue permits, yet they go outside the prohibited district and arrest all in the Town of Lake (old town).

As you have called particular attention to me, I wish to make a statement showing the evidence. One of the city attorneys was assisting the saloon attorney. A young man swore that he bought two ounces of brandy of me, no questions asked. The sale was registered, name and address of purchaser. Did I not comply with the law? I was fined with the others.

Another case: A. C. Musselwhite. The sale was registered and Mr. M. had two witnesses to prove the registration, yet he was fined. In view of your advice to register all sales, what have you to say on the law and the evidence?

Perhaps you can tell why the churches of this end of the city are impugning our association to join them in an attack on the saloon element.

Perhaps you can tell why the majority of the saloons on the borders declare this raid on the druggists an outrage.

Perhaps you can tell why sixty-five warrants sworn out against druggists in Hyde Park were not served.

Perhaps you can tell why warrants were sworn out against sign boards.

name on the skin having been out of business two years.

Perhaps you can tell why the warrants were given to a constable who could not read United States, and who handed the bunch of warrants to the victim and allowed him (the victim) to pick out his own warrant. We have the people and the churches with us, and they are ready to "put up" for a fight. The devil is against us in the saloon keepers, the brewers (who want to break down the prohibition district), the city government, for what reason we do not know just now. We have banded together for a fight to a finish, and propose to get some information and send some fellows in the direction of Joliet.

Perhaps you have some more timely advice to give us.

Very truly,

L. C. HOGAN.

Chicago, February 24, 1894.

PRACTICAL WORK AT PURDUE.

To the Editor:—The article in the February 15 number of the Era concerning practical examinations by boards of pharmacy leads me to say a few words for my alma mater. The work in Purdue School of Pharmacy has become intensely practical in every department. Indeed the object is to give the student not only a good idea of the contents of text books used, but to make that knowledge so thorough and practical that he will be competent to satisfactorily fill any position, whether he has had previous experience or not. Especially is this apparent in the dispensing laboratory. The student is drilled thoroughly in everything pertaining to this department. He receives the prescription over the counter, reads, fills, labels and wraps just as he would in a first-class pharmacy. His work is inspected by a competent instructor, who makes such corrections and suggestions as are necessary.

The examination questions by the board of the State Pharmaceutical Association are such as will test the student's practical knowledge of the subjects treated. Not only are these examinations written, but they also require test work in the dispensing laboratory. Indiana has a school of pharmacy of which she may feel proud. One which, though young, stands in the front ranks with other schools of its kind. One where young men and women are fitted to occupy responsible positions with honor to themselves and their alma mater. I am much pleased with the examination questions presented in recent numbers of your magazine. They will be of infinite value to drug clerks everywhere. We need something of the kind to keep us refreshed and up to the times. For who does not become rusty in this grand, ever interesting and progressive work. I hope you will continue the publication of these questions. Make them very practical. This is an age where theory is thrown to the four winds. "Is it practicable" is the question. Then let us have only that which is practicable.

J. R. MUTZ, Edinburg, Ind.

WINDOW DISPLAY.

To the Editor:

I wish to describe an apparatus I have in my show window which is attracting a great deal of attention. It is an immense pair of home-made scales made of

wood and pasteboard, glued, and suspended from the ceiling. On one pan I have whatever merchandise I wish to advertise; in the other pan I have an eight-ounce bottle, placed in the side about half way up, with a rubber syphon tightly fitted in the hole. On a shelf near the window I have a 5-gallon can filled with water which runs through a rubber tube into the mouth of the bottle on the scale pan.

The scales are so balanced that when the bottle is empty that side is up. The water flows continually from the 5-gallon can into the bottle, and soon makes it heavy enough to go down. If the scales are properly balanced, by the time the bottle has reached bottom, it is over half full, i. e., the water is above the highest point of the syphon, and of course that starts the syphon. This syphon is made of tubing twice the caliber of the supply pipe. It tightens the bottle and allows it to go up again until the bottle is emptied, when the syphon stops and will not start again until the bottle is over half full of water and down.

If the weights on the scale pan are so adjusted that the bottle does not reach its lowest point of descension till it is half full of water and the syphon just started, nor its highest point of ascension till the syphon has stopped and the bottle empty, the motion will be continuous.

With a 5-gallon reservoir and nursing bottle tubing as a supply pipe, the apparatus will run several hours. The syphon in the bottle must be at least twice the caliber of the supply pipe.

The hole in the bottle is made with a file dipped in turpentine, a tedious but not difficult operation. I made a carbonic acid see-saw from the description in the Era, with an addition of my own, which allowed the gas, as it escaped, to bubble through water contained in a wide-mouth bottle, sitting in front of the see-saw.

GEORGE H. GOULD,
Louisville, Ky.

A NEW PLAN.

To the Editor:

Seeing in the Era of March 1st an article headed "One Way to Protect Retail Drugists." I would say that I do not think the wholesale druggist wholly responsible for the patent medicines sold to grocers. A good many are not handled by druggists, but are put up by quacks and put into groceries on commission. Although for the staple patents the wholesalers are responsible. The grocers selling patents are supplied through their jobber, who buys them from the wholesale druggist. If this were stopped and the following plan adopted I think a great deal of the present trouble could be corrected:

If druggists would stop making sarsaparillas, cough cures, nerve tonics, etc., the manufacturer would stop selling direct to the "cutter." Why? Because the druggist making the above preparations recommends them in preference to the article on the market, the sale of which is thereby decreased. Now, the wholesaler is prohibited from selling to the "cutter" by the retailer's kicking, and as the retailer won't sell the article on the market because he recommends his own, what is the manufacturer going to do? Shut up shop? I guess not. He will supply all the "cutters" that will sell his goods. Hence the cutter. In the first place, if we had a law prohibiting the manufacture of patents which could not

stand a thorough examination and test by a state medical or pharmaceutical examiner, on the same principle as our U. S. Patent Office, it would diminish the amount of patents on the market, decrease the amount of dead patent medicine stock, and, last but not least, decrease "cutting" and give the doctors a show, and thus increase prescription trade.

Yours respectfully,

WM. H. MARTNER,
Mgr Liebig Pharmacy, Detroit.

PACIFIC COAST NOTES.

The Padena Drug Co. will occupy a handsome new store in the Hotel Grand block at Pasadena.

The Utica Mining Company is building a hospital at Angels, Cal., for the use and benefit of the employes of the company.

Adolf Ekstein, a Los Angeles druggist, has recently moved into an elegant store in the Bradbury block. It is said to be the finest drug store in Southern California.

The California Steam Navigation Company, plying between San Francisco and points reached by the rivers, have adopted a plan of carrying a drug store on board for the use of the passengers.

Wm. C. Spencer, of San Francisco, has made an application to the Superior Court, for a decree adjudging F. A. Weck guilty of fraud in having misappropriated about \$6,000 of the funds of the drug company.

M. W. Heinrich, proprietor of the Pacific Pharmacy at Eureka, Cal., was married at Arcata a few days ago to Miss Annette Minnick, who arrived here from the east a day or two before the ceremony.

Will Liteheld, of Pasadena, has been employed by the wholesale drug firm of F. W. Braun & Co., of Los Angeles. Paul Derfe, a graduate of the Chicago College of Pharmacy, succeeds Mr. Liteheld with Chas. E. Weck, of Pasadena.

Mrs. Larson, wife of the steward at the Receiving Hospital in San Francisco, went into the drug store at the hospital a few days ago and by mistake took a dose of corrosive sublimate, intending to get a dose of chloral. The physicians were unable to save her life.

The San Bernardino Courier claims that drug stores in that county are reaping the benefits from the high saloon license. It claims that a thriving liquor trade is being done by the drug stores, but is not such an extent as prevailed a few weeks ago. At that time one of the clerks was convicted and fined \$100 for selling liquor at retail.

Dr. A. A. Clarke, who for several years past was employed in Caldwell's drug store at Biggs, Cal., has been arrested in Tombstone, Ariz., on the charge of bigamy. It seems that Mrs. Clarke never one, who had been living at Minneapolis, appeared upon the scene, greatly to the chagrin of the doctor as well as to his present wife, who is said to be an estimable lady.

R. L. Reid, a Tulare druggist, appeared before the supervisors of Tulare county to ask for advice concerning the payment of a retail liquor license. He claims to keep liquor only for prescriptions and his sales do not justify him in paying his license exacted for retail liquor. The prevalent opinion is that Mr. Reid could not be required to pay the retail liquor license, but a druggist's license only.

PHARMACEUTICAL ASSOCIATIONS.

MORTAR AND PESTLE CLUB OF RHODE ISLAND

The first annual meeting was held in Providence on Wednesday, February 14, at No. 218 Weybossett street, President A. O. Hull in the chair. A lively interest was evidenced by a good attendance representing all sections of the state. Following the reading of minutes of the January meeting the president's address was read. An abstract of this address follows:

"The words organization, organization, published in very bold type in The Pharmaceutical Era a little more than one year ago by Mr. Frick, secretary of the Inter-State Retail Druggists' League, attracted my attention. I resolved to correspond with Mr. Frick, who gave me very willingly and encouragingly all the information necessary regarding organization, and all the benefits to be derived, locally and nationally. Acting upon Mr. Frick's advice, I conceived the idea of enlarging the Mortar and Pestle Club and into a State Organ as a branch of said League. The Mortar and Pestle Club of Rhode Island was launched into existence on the 1st of January. Several meetings were made personally to get an expression of the druggists or rather to wake them up to the urgent necessity of an efficient and united course of action in a very demoralized condition, into which we had been slowly but surely driven, in trying to hold our trade from drifting into other channels, but to no avail. After interviewing a few intimate and warm personal friends in the trade, a call was made for a meeting on the above date and was responded to by a mere handful of druggists, but who have since proved very earnest and sincere in their endeavor to make a grand struggle to better the conditions of pharmacists of this vicinity. I felt very much disappointed to find that so few were sufficiently interested and realized that I had undertaken quite a contract to organize the trade of this state. But with the aid of ten willing workers I have pushed on until the club at present has a paid-up membership of over 90 per cent of the retail druggists of this state. I feel that we have been remarkably successful considering that our druggists are scattered all over the state, requiring a great amount of patience and persistency to obtain the percentage we have at the present time. I am also very grateful to our very efficient traveling salesmen for their hearty co-operation.

(He then followed with various recommendations: That a grievance committee be appointed, that the constitution be revised, and that the wholesale druggists be petitioned not to sell at wholesale prices to any but recognized dealers.—Ed.)

"I would suggest or ask that each and every member of this club and in fact every druggist in this state, who are manufacturers of proprietary goods, request such manufacturers to place their products upon the league contract plan, and that some perfect system be adopted for identification marks' upon such goods, if they have not already done so, that it may be possible to trace their goods to the consumer, and guarantee them your hearty support, when such a system has been adopted, preferring to have dealings with only those manufacturers who have a system of protection that protects.

"I would also recommend that a committee on commercial interests be instructed to correspond with influential pharmacists in the larger cities of such of the New England states as have not yet taken steps towards organization.

"Aside from the main point of interest, we have in the past year been earnestly working for the druggists at large, namely, for improvement in the profits in our proprietary departments. Locally, we should use our united strength to obtain greater improvements in our state pharmacy laws, and are considering that most of our earnest workers to be too ancient or crude to be of service in this advanced stage of pharmacy. The method of which the members of our Union of Pharmacy are appointed are entirely unsatisfactory. The examinations are not of that practical standing which is required to insure the competency of the candidate who has the certificate of reg-

istration guaranteeing him to be proficient in his selling. The pharmacist who (as is quite frequently the case) employs a clerk with only the state registration certificate, finds it is not backed by its holder.

"I repeat, organization first, and by organization many desired necessities can be obtained. We have in the Inter-national Association with a constitution that is all we can ask for, to carry out the plans upon which we have been at work for the past year. I feel assured that in a comparatively short time there will be sufficient members to represent 80 per cent of the druggists of the greater number of our states, and numbers tell. Montreal in 1892 we had very little weight, but you will notice that at Detroit in 1893 our delegates were recognized. Their power was felt, we came very nearly getting the order of the day.

"Now in 1894 we will go before the annual conventions with our requests backed up by such overwhelming majorities that the retail druggists that they will gladly accede to our demands, the mutual benefits to be derived will be so apparent that the struggle will be lost in advance.

"Local organization is absolutely necessary that we may be prepared to send good and efficient men as delegates to the conventions.

"I hope that every one of our druggists feels the necessity of placing his name on our list to become a member of this club. Whether John Smith, Paul Jones, Chicago or New York or other supposed leaders sign or not, put your name first and make Little Rhody the first state in the union to complete her list. Do not wait, for as has been said of her before, her size is not determined by square feet but by heads."

Following the above address reports were made by financial secretary and treasurer, which showed a balance on hand and a very satisfactory financial condition in the club's affairs.

The election of officers for the ensuing year resulted in the choice of:

Albert O. Hull, of Central Falls, President.

Henry J. Alfreds, of Providence, vice-president.

Edgar K. Gridley, of Pawtucket, secretary.

Howard A. Pearce, of Providence, financial secretary and treasurer.

The president then announced the following committees:

On finance, Wm. E. Cates, of Providence; Chas. A. Glaney, of Pawtucket, and Frank A. Jackson, of Woonsocket.

On membership, H. L. Swindells, Manton; R. S. Soper, Providence, and R. F. Linton, Woonsocket.

On ways and means, Jas. A. Robinson, Pawtucket; Howard A. Pearce and E. A. Payne, Providence; Chas. F. Gladding, Warren.

John Metzger, Providence, scientific interests.

Jas. O'Hara, Providence, commercial interests.

Henry J. Alfreds, Providence, social interests.

A large number of members were added to the club's list at this meeting and a feeling of approval of its work in the interests of retailer is manifesting itself throughout the trade of the state. After adjournment a collation was served, and after cigars were lighted interesting and instructive remarks of a most practical and businesslike character were made by Pres. Canning, of the I. R. D. League; F. W. Reeves and Geo. W. Cobb, of the Apothecaries' Guild of Boston; and also a report was made by the club's delegates, I. M. Smith, H. J. Alfreds and E. K. Gridley, who were present at the I. R. D. League special convention held in New York on February 6.

Illinois Pharmaceutical Association meets at Peoria, August 14-16.

Pharmaceutical Associations have been formed at Fitchburg, Mass.; Lewiston, Me.; Salina, Kans.

New York State Pharmaceutical Association will hold its next annual meeting at Saratoga some time in June.

Denver Pharmaceutical Association held its annual meeting and banquet at the St. James Hotel in that city February 13.

Norfolk & Portsmouth Pharmaceutical Association has fitted up assembly room, reading room and library in Norfolk, Va., and is making a collection of rare drugs, chemicals, pharmaceuticals, etc., to which contributions are solicited. The secretary is J. W. Thomas, Jr., Norfolk.

Manitoba Pharmaceutical Association met in annual session at Wintnipeg February 21. Total membership 23. Papers were read and new members of the council elected. It was voted to present annually gold and silver medals for general proficiency in the major examinations.

Tennessee Pharmaceutical Association will meet in ninth annual session at Chattanooga, May 16th. The various committees promise interesting reports, and an effort will be started to extend the provisions of the pharmacy law to the smaller towns. Every druggist in towns now affected by the law is requested to attend and express his opinions. Secretary, Will Vickers, Murfreesboro.

Southern Association of Wholesale Druggists.—The postponed annual meeting was held in Memphis, Tenn., February 26, with a representative attendance. The usual routine business was transacted and in this respect and in amusement features the convention was a notable success. The association is accomplishing much in the way of harmony and unity in the trade.

The time of the annual meetings was fixed for the third week in February of each year—not earlier in the week than Tuesday. Atlanta was selected as the next place of meeting. The following officers were elected: P. P. Van Vleet, of Memphis, president; D. D. Phillips, of Nashville, first vice-president; M. A. Fall, of Atlanta, second vice-president; F. W. Schumacher, of Waco, Tex., third vice-president; A. G. Cassells, of Vicksburg, Miss., secretary; J. C. Lyons, of New Orleans, treasurer.

The following resolutions were adopted:

Resolved, That the association memorialize all manufacturers of proprietary goods (excluding pharmacutists) to incorporate in their contracts the arbitrary one-quarter dozen advance clause; also that forbidding the sale of their goods to cutters, except at retail prices.

Resolved, That the issuing of special lists at leading figures in full package quantities to retailers is against the interests of the wholesale drug trade, and that this association urges upon its members the discontinuance of same.

Resolved, That we reaffirm our confidence in the rebate plan as a thoroughly satisfactory method of maintaining uniform prices.

Resolved, That this association endeavor to demonstrate to the United States senate that the increased tax on alcohol as now provided by the Wilson bill as

passed the house, placing a duty of \$1 per proof gallon on this item, will prove very serious additional expense in the production of pharmaceutical and chemical preparations, and that is an onerous charge on the wholesale and retail druggists, as well as manufacturing pharmacologists and chemists; that the United States senate be urged to return the bill on the basis of 50 cents per proof gallon, as ruling heretofore.

BOARDS OF PHARMACY.

South Carolina Board of Pharmacy met at Charleston March 8 for examination of applicants for registration.

Maine Board of Pharmacy granted registration February 11 to Gridley R. Fogg, Skowhegan; George H. Kelley, Lubec; Wallace W. Dryson, Portland; Frank W. Hucnam, Yarmouth; W. H. Walker, Vinahaven; Alfred M. Ferguson, Belfast.

Georgia Board of Pharmacy met at Atlanta February 26. Of ten applicants for registration the following six were successful in passing the examination, viz.: O. B. Hartzog, Atlanta; R. C. Hood, Harmony Grove; L. C. Newman, Alabama; W. M. Caldwell, Chipley; H. T. Marsh, Jr., Savannah; H. K. Sipper, Atlanta.

Alabama Board of Pharmacy at its last meeting granted certificates to C. M. Howard, Tuskegee; Cuba W. Hunter, Montgomery; Eugene Whaley, Birmingham; C. P. West, Jr., Clayton; W. J. Galloway, Abbeville; T. D. Reed, Mobile; T. C. Freker, Mobile; E. E. Ravenscroft, Union Springs; E. T. Castleberry, Caladega. Next meeting at Anniston, May 17.

Michigan Board of Pharmacy held an examination in Grand Rapids March 5 and 7. The successful candidates were: Registered pharmacists—H. D. V. Altego, Bradley; J. Ball, Nashville; C. E. Bradshaw, Yale; Florence Burch, Adair; P. J. Depree, L. E. Jones, Robert Johnson, Grand Rapids; G. J. Menold, Luther; E. L. Moore, Melvin; J. C. McGregor, Ann Arbor; J. H. Scott, Carland; F. W. Welse, Saginaw.

Assistant pharmacists—C. J. Anderson, Manistee; L. D. Bates, Burnside; B. L. Beorrs, Carsonville; Corin Becantel, Wayland; R. J. Burrows, St. Ignace; Caleb Cowing, Henrietta; S. Cudlip, Marquette; A. W. Dickerson, Conklin; B. C. Fisk, Edwardsburg; E. J. Fletcher, Grand Rapids; C. E. Foster, Webberville; R. C. French, Diamonddale; A. E. Fuller, Richmond; G. G. Gardner, North Star; Robert Goodfellow, Clio; F. J. Green, Manistee; M. K. Greening, Quincy; R. C. Henderson, Millington; M. J. Hills, Grand Rapids; J. A. Hawson, Saginaw; T. P. Hull, W. E. Lefever, Muskegon; L. O. Loveland, Charlotte; W. B. Minthorn, Oscoda; D. W. Mitchell, Harrisville; W. G. Moody, Shelby; Leroy H. Moss, Whitehall; E. S. Nivision, Mendon; E. E. Ormsby, Clio; W. F. Osterlee, Grand Rapids; G. W. Otto, Lakeview; H. D. Packard, Flushing; J. W. Smith, Benton Harbor; S. Swarthout, Marshall; C. J. Tietz, Saginaw; F. C. Warner, West Bay City; E. T. Butzbach, Benton Harbor; Jesse H. Bruce, Ewart; A. Drisler, Jr., Saginaw; F. L. Failing, Grand Rapids.

The next meeting of the board will be held at Star Island, June 24, 25 and 26.

Illinois Board of Pharmacy.—At the practical examination held in Chicago February 13, 14, 15, the following were registered as registered pharmacists

by examination: J. Adams, R. W. Allen, E. H. Allen, R. W. Baker, J. W. Chladek, Jr., M. A. Colin, R. S. Collins, E. Van Delden, M. A. Dubois, I. H. Emple, P. Erb, C. P. Gieraltowski, F. W. Gregory, W. J. Hamilton, C. H. Hoffman, H. Johnston, C. G. Knight, V. T. Lewis, W. T. Liddell, H. E. Lindblade, M. McAnany, H. C. McWilliams, P. A. Nyström, R. Reuter, L. Roettig, E. E. Rossman, S. Rubenstein, F. Rudnick, E. Seward, W. W. Sherman, C. A. Soule, F. M. Thora, F. W. Windmüller, W. T. Winters, E. C. Zobel, of Chicago, R. T. Abernathy, Summer; S. C. Davis, Morton; F. I. Ellis, Highland Park; C. P. Guenther, Freeport; H. Russell, Hebron, and J. Ulrich, Peoria.

The following passed a satisfactory examination as assistant pharmacists: G. Bollinger, J. P. Brennan, J. M. Callender, K. S. Chulzinski, T. Cupit, Jr., G. H. Cushman, D. Flavin, K. R. Forston, F. P. Hauher, W. P. Hiller, P. Johannes, W. H. Kelly, D. Landau, L. Lowenthal, L. Mrazek, D. F. McNah, M. B. McSherry, A. A. Rowland, H. J. Schulte, of Chicago; and C. A. Dolloger, Wheaton. Twelve failed. Next meeting April 10, at No. 173 Thirty-ninth street, Chicago.

MICHIGAN UNIVERSITY NOTES.

The School of Chemistry which was conducted during the summers of 1891 and 1892 received such hearty approbation that the faculty of the literary department, under the authorization of the board of regents, decided to organize a permanent summer school upon a much broader basis. Accordingly a committee was appointed to devise plans and perfect arrangements for a more extended curriculum for the summer term of 1894. The committee assumed that a large proportion of the students would be superintendents and principals in schools and teachers in high schools and academies, who would desire to enlarge their academic and professional preparation for their special work, and therefore arranged a programme with immediate reference to that end. However, students wishing to review studies preparatory to presenting themselves for admission to college or university, will find courses directly adapted to their wants. In addition to chemistry, instruction will be given in the languages, mathematics, physics, botany and other sciences during the six weeks beginning July 9 and ending August 17. The University libraries, laboratories and museums will be open to students subject to the usual regulations.

Donations to the museum of the School of Pharmacy have been made as follows: Frederick Stearns & Co., of Detroit, kindly presented an excellent specimen of the mineral wax, ozokerite, thereby completing the collection of waxes derived from the three kingdoms of nature. We have received a line of the most important digestive products from the Armour Laboratory, Chicago. That portion of Michigan's exhibit in the forestry building, Jackson Park, which related directly to pharmacy has been placed in the museum. A beautiful specimen, nearly four feet high, of the flax-seed plant was collected and presented by H. W. Snow, Ph. C., '84, of Omaha, Nebraska. We are indebted to Lehn & Fink, New York, for a musk caddy, oil of lemon drum, two essential

oil containers from China, an oil of rose canteen, a large gourd of Harlaodges' arow, and an original package made of raw-hide in which Honduras sarsaparilla was shipped.

A Journal Club of Chemistry, composed of professors, instructors and advanced students, has just been organized. Each member is to present during the semester a complete report of the bibliography of two chemical subjects which he desires to select. Credit is given in the literary department to advanced students just as in any other course. The history or research upon acetone and its derivatives was the first subject discussed at the meeting Wednesday, February 21.

It is customary for the various professors to notify by mail students who have been delinquent in work during the semester, of the "condition" imposed upon them. As a rule these "conditions" are sent so they will be received on Monday evening following the close of the semester. An unusually large number of students went their way to the evening delivery, sincerely hoping that no mail will be forthcoming. One of the Ann Arbor merchants conceived the idea of sending out a number of advertisements in envelopes, which in appearance and address were to be close imitations of the original notices. The scene at the delivery window was a sorry one, as the anxious students stepped up and received, as they supposed, the dreaded notice. As the envelope was handed out the student would turn pale, or perhaps red with anger, suddenly hide the missive, retire to some secluded spot or under the glare of an electric light and tear open the envelope, only to break forth into spasmodic gestures and perhaps mild expressions of profanity as he read: "Buy your second semester books of _____ and save money."

Alumni Association St. Louis College of Pharmacy, has elected the following officers for the ensuing year: Charles A. Lips, president; Sam E. Barber, first vice-president; Charles F. Geiger, second vice-president; Theodore F. Hagenow, recording secretary; Benjamin J. Otto, corresponding secretary; Charles Gietner, treasurer; Oscar F. Helmeyer, registrar; William C. Bolm and Dr. J. C. Falk, members of executive board.

The membership of the association has increased during the past year from 245 to 283.

T. Wah Hing, M. D., a Celestial physician of Sacramento, has applied for a position on the Board of Health.

Plouf vs. Cavanaugh is the title of a suit in court at Oakland, Cal. The gentlemen were partners in a drug store, whose principal stock in trade consisted of "Plouf's Famous Rheumatism Cure." It seems that during the absence of Plouf, Cavanaugh sold the store for a good round sum and now the partner sues for an accounting.

A rancher on Vashon Island, in the Puget Sound country, found a box floating in the water which contained about 200 pounds of what he thought to be water-proof paint. He proceeded to paint his house with it from roof to cellar and it turned out that it was \$3,000 worth of opium which had been thrown overboard by smugglers. The rancher has the distinction of having the most expensively painted house on the Pacific Coast.



THE O. & W. THUM CO., GRAND RAPIDS, MICH.

OTTO THUM. FERDINAND THUM.
HUGO THUM. WILLIAM THUM.

TRADE COMMENT.

DIRECTORY SUPPLEMENTS.

The third (1894) edition of the Era Drugists Directory has now been issued, and the regular publication of the "supplements" to this new edition was begun in the (February 1st) issue of The Pharmaceutical Era. We solicit from our readers information regarding any changes among the drug stores in their locality, such as new stores, removals, sales, failures, deaths, etc., etc. Address

D. O. HAYNES & CO., Publishers,
DETROIT, MICH.

Judge Gary, of Chicago, has created a useful precedent by reversing a case because the witnesses were bullied and worried by the attorneys.

It is intimated that the porous plaster industry is enjoying considerable of a boom since the issue of Columbian postage stamps was discontinued.

Co-operative societies are creating havoc with the prices of drugs in Belgium, and as a consequence the regular pharmacist have been compelled to reduce dispensing charges.

According to "The South-West," a bargain is a transaction in which each party thinks he has cheated the other, and consistency is defined as a jewel often sold to pay the price of success.

Lewis A. Langton, 35 W. Maryland street, succeeds to the firm of Comstock & Langton, 87 Commercial Club, Indianapolis, Ind. They are manufacturers' and importers' agents.

The failures in the United States reported by commercial agencies during January, 1894, amounted to over \$30,000,000, while those for February footed up only \$15,000,000, a decrease of a little over 50 per cent.

Evidently cleanliness is not next to Godliness in some parts of England, for we are informed that a magistrate in the tight little island has ruled that combs, sponges, etc., are not necessities and a pharmacist has been fined for so considering them.

To show the great saving which will be made through the construction of the Manchester ship canal it has been estimated that the former railroad rates from Liverpool to that city were equal to the transportation rate for 8,000 miles at sea. Figures of this kind may be useful in the investigation of the status of the Nicaragua Canal Company which was instituted by the Senate a few weeks ago.

The Supreme Court of Alabama has decided that commercial ratings are nothing more than the estimate of a third person as to a man's financial condition, and the amount of credit which, in the opinion of such third person, may be safely given. They cannot be used as evidence for or against him as to his real financial condition at the time to which they relate.

A coroner's inquest held upon the remains of a dispensing chemist in England brought forth the medical opinion that death was "due to bronchitis accelerated by a shock following a fall, acting upon a constitution weakened by alcohol," and a verdict to that effect was rendered. In America such a condition of affairs would result in a verdict that death was due to a "complication of diseases."

It is stated that the \$250,000 which was to be raised by subscription, as an addition to a similar fund appropriated by the last legislature of New York State, has been raised, and that the project of a botanic garden at Bronx Park, New York, is an assured fact. It is thought that the fund can be further increased to one million dollars through the same means.

A clever swindler, with headquarters in Chicago, has been advertising in Holland papers for physicians to locate in different parts of the country, guaranteeing free house rent and an income of \$5,000 per year. All applicants were requested to send their diplomas. The scheme was discovered by the Netherlands consul, who intercepted thirty replies to the advertisement. It is presumed that the advertiser intended to sell the diplomas thus obtained.

It is said that within a short time the Florida sponge industry will be centered near Tarpon Springs, near the mouth of the Anclote river. The facilities there are excellent as a rendezvous for the sponge fleet, being within a few hours' sail of the fishing ground, while the present headquarters of the industry at Key West requires a two weeks' sail. Several Key West sponge merchants are making preparations to remove to Tarpon Springs.

The United States Circuit Court of Appeals has recently decided that the clause in the bill of lading of transportation companies exempting them from liability for loss or damage, unless written claim be made within thirty days after such loss or damage, is void. Another clause providing that the carrier shall not be liable for loss or damage unless action be brought against it within three months was decided to be reasonable, as having within its scope all losses or damages sustained in the ordinary course of business.

In commenting upon the patenting of a new remedy the Chemist and Druggist notes that an English patent was granted in 182 to H. Erdmann, Haale-on-Saale University, Germany, for the use of rubidium iodide as a remedy for syphilis. Intumescence of the glands and other maladies, and asks why a fact in therapeutics can be patented. An observance of the law in this instance would render it necessary for the physician to obtain the consent of the patentee before writing a prescription including the remedy named.

A certain experimenter, says the Plumber and Decorator, has been trying the comparative effect of various sorts of decoration upon the lighting of rooms. Taking a room hung with black cloth he illuminated it with 100 candles, and then counted the number of candles necessary to bring rooms decorated in other ways to the same degree of illumination. He found in this way that a room with dark brown paper required eighty-seven candles to make it as light as the black cloth one with 100. A room with blue paper took seventy-two candles, and one with pale yellow required sixty. A room lined with panel work either in natural wood or in white paint needed fifty candles; one with dirty paneling required eighty, and a room with plain whitewashed walls took only fifteen.

An Ohio company has located a plant at De Land, Florida, for the manufacture of starch and flour from cassava and sweet potatoes.

In commenting upon the litigation which is now going on between the various firms engaged in the business of rubber-reclaiming on the question of infringement of patents, the India Rubber World says: "The fact is that recovered rubber constitutes a large proportion of the essential raw material which enters into rubber goods of all classes. For every pound of crude rubber used, there is another pound of reclaimed rubber used also; and the processes of manufacture have advanced to such a stage that the reclaimed product serves the purpose even better, under existing methods of manufacture and in view of the market demand, than though the goods were made wholly of crude rubber. In short, recovered rubber is a staple product, and its cheapness and excellence are at the very basis of prosperity in rubber manufacture."

Advices from Pomona, California, state that there never has been such a season of activity in planting olive orchards in California and Arizona as this year. All the olive nurseries in Pomona have been working day and night for three weeks in filling orders for olive trees, and have more orders on hand for olive trees than they can fill. Shipments are made all over the state. Thus far about 300,000 olive trees have gone out from there to points in southern and central California, and fully 100,000 more trees will be shipped before the season closes. The great financial success which has been achieved in olives in southern California orchards in the past two years has given unusual impetus to this industry. The olive crop in Pomona valley during the past season amounted to over \$50,000, and it was a short crop. Seven years ago there were less than forty olive trees in the whole valley.

A method of testing the durability of paint that is often used is to cover a piece of glass with the pigment that has been mixed with raw linseed oil and to expose it to the action of the sun and weather for several months, carefully noting its condition at regular intervals, say twice a month or even once a week. When it is considered that paint is not applied to glass in ordinary work but to wood, which being absorbent, is an entirely different thing, it might appear that the value of the experiment is not considerable. As a fact, the test is a valuable one if a test of comparison is made, says the Plumber and Decorator. Comparison is the key note of all practical paint testing. In the case referred to, a piece of glass should be painted with a pigment, the durability of which is well known, and then it should be exposed side by side with the sample under examination. Suppose, for instance, that it is desired to test the probable durability of a mixed paint. If first-class white lead mixed with raw linseed oil is applied to one sheet of glass, and the mixed paint to another, and the two sheets of glass are exposed to exactly similar conditions, valuable information can be obtained as to the probable durability by comparing the two. The test may be made more useful by painting and exposing two boards in the same manner and at the same time as the glass.



WORKS OF THE O. & W. THUM CO.

IN the summer of 1876, daily after school hours, Otto and William Thum, then school boys, spread sticky fly paper in the laboratory of their father's drug store at Grand Rapids, Mich., to supply the requirements of its trade. This amounted to about fifty sheets per day and each day fifty sheets were sized and hung up to dry, and sheets which had been sized the day before were "stuck."

Such was the beginning of Tanglefoot, which like so many successful articles, had a most humble and modest beginning. Sticky fly paper was not by any means new. It had been used many years before, had fallen into disuse and had been entirely forgotten by the dealers; but about this time was again revived locally, and was meeting with favor as a novelty.

The boys, who were somewhat ambitious, saw an opportunity for making a little pocket-money, and soon had other smaller boys out selling from store to store and from house to house. Jobbers did not carry sticky fly paper at all, owing to its perishable nature. Druggists who sold it were compelled to make it themselves, and many did not care to do this on account of the work. Those who were friendly, as they began to have calls for it, bought it from the boys, and they did a thriving little business. Things went on in this way for a couple of years, during which small orders were occasionally received from neighboring small towns, and occasionally the local jobbers would send in for a box or two to fill an order. By 1879 Thum's Sticky Fly Paper, as it was then known, was quite generally sold throughout western Michigan.

Sticky fly paper of those days was not the perfected article of to-day, but was an ephemeral product good for a few days only. It was crudely made by hand from existing crude formulae; was not provided with any sealing or retaining device of any kind; would soon run out at the edges, and, if not made and sold quickly it would spoil on the dealer's hands. Therefore it had to be made fresh every day to fill immediate orders for immediate wants only. The spontaneous increase in the demand made it evident that a large and remunerative business could be built up, if only suitable machinery could be obtained to turn out large quantities quickly to supply orders from jobbers on demand, and to insure fresh goods.

In 1880 the need of machinery was keenly felt, but none could be purchased. It had first to be invented, and Otto, whose

natural mechanical inclinations favored him, applied himself to the task. William, who was then working in his father's drug store, devoted what was left of his small salary to help float the enterprise, for building new machinery was then, as now, expensive, and the profits came nowhere near meeting the outlay. By the next season machinery had been perfected which answered its purpose fairly well, and it was certainly a great improvement over hand work. About this time the first orders from outside began to come in, T. H. Hinchman & Sons being the first to buy, and they were quickly followed by other Detroit jobbers, F. W. R. Perry, acting as agent for Detroit. From this time on the sale began to increase rapidly, but the gains up to 1883 consisted entirely of experience. Although the sticky composition had been greatly improved, and the paper better prepared, the product was still a very perishable article and two weeks generally saw the end of its usefulness. The jobbers, from the nature of the article, were prejudiced against the very name of sticky fly paper, and they had to be protected against all kinds of losses. The paper, owing to its instability, had to be shipped by express at high rates, and the larger the territory grew to be supplied, the greater became the risks and the losses until finally they were in excess of the profits. It was clear that if the business was to be continued, and was ever to net anything more desirable than experience, and sad experience at that, then the nature of sticky fly paper would have to be radically changed. The leading question became how to make the paper permanent. It must be made to remain perfect for at least two years. The first thing to be thought of was to devise some means of restraining the soft, semi-liquid catching material, and many were the plans and schemes considered; as many were rejected as useless or impracticable until finally the present wax border was evolved, which with some modifications is still used. During all the time of experimenting extending over a period of two years, which constitute the dark middle age of Tanglefoot, the manufacture of the unsealed paper was continued at a loss, and all the money that could be raised by borrowing, coaxes and threats, was used to fill up the gap until the perfected paper could be turned out. This finally did occur towards the close of the season of '83. It was taken up eagerly and enthusiastically by all to whom it could be offered, and at last the turning point was reached.

The inventory of January 1, 1884—ten years ago—showed on hand: the grand prize, "the patent for the sealing border," several lesser patents, a perfect and complete little plant, high hopes, almost limitless experience, no money, and the jobbers' confidence yet to gain. In the spring of '84 dawned a new era for the boys, the sealing border was making for itself a reputation, and the knowledge of it was spreading. W. H. Schieffelin & Co. were the first to order outside the state, Mack & Co. and C. F. Richards & Co. were the pioneers on the Pacific coast. The Lamar Drug Co. yielded soonest in the south. Now every wholesale drug house in the United States handles Tanglefoot.

Early in their career the boys recognized that to be popular their paper must be cheap, and that every improvement followed by a reduction in the cost must apply to the price as well, so that from \$7.50 per case in '84 it has been reduced to \$3.00 per case in '94. In 1880 the consumer paid five cents for a small sheet, 9x16, while now he gets a double sheet of twice the catching surface, and three times the catching value.

From 1884 to the present time the progress of Tanglefoot has been uninterrupted, each year bringing new customers and larger orders. Every winter has been spent in increasing the facilities and improving the product. In 1886 Tanglefoot was made for the first time on its own premises, which consisted of a room fifty feet square. Now it requires a floor space equivalent to twenty-four such rooms, five of which are filled with special machinery and labor-saving devices invented and perfected by Otto and William Thum. Others contain general machinery, such as printing presses, cutting and creasing presses, box and case machines, melting and mixing tanks, etc. Several are used for hand work, as sorting paper, folding strawboard, and folding the holders. The remaining rooms are used for storing. Everything is conducted on the most economic principles, and everything excepting the raw material is made on the premises. The whole plant is run with system, precision and care, and every step in the manufacture is carefully supervised by one or the other of the firm. The great amount of care and watchfulness required can hardly be conceived by one not in the business, and is seemingly entirely at variance with the innocent and simple appearance of a sheet of fly paper. The least carelessness may be productive of serious results, a single faulty sheet may spoil an entire

box, prejudice a dealer, and lose a customer.

The present premises consist of a substantially built main building 300 feet long, two and three stories high and supplied with all the latest devices for convenience, comfort and safety, receiving and storing sheds, power house and water works, machine and carpenter shops, all fully equipped to build all special machinery used. The full capacity of the plant during the season is 2,000 cases per day, amounting to 20,000 boxes or 1,000,000 single sheets, equal to a strip of Tanglefoot 250 miles long. When it is considered that all of this is subjected to six distinct operations before it becomes Tanglefoot, besides the packing into boxes and lastly into cases for shipping, some idea may be formed of the vast amount of work performed on days when the full capacity is utilized. During the season of 1893 150 hands were kept busily employed.

In 1892 the concern was incorporated with an authorized capital stock of \$150,000, which is all paid in. With the incorporation William became president, and besides his regular duties his speciality is to attend to the inevitable infringer, who is numerous since success is assured. Otto vice-president and manufacturing manager. Hugo is in charge of the experiment room, in which he and others are continually at work in the hope of still further improving the compounds which have made Tanglefoot so successful. Over 2,000 experiments, each thoroughly and practically tested, are fully and minutely recorded on the laboratory records. F. Thum is secretary and treasurer.

The wonderful increase in the use of sticky fly paper must be ascribed to the great improvements in its essential features, viz.: permanence, lasting utility, cheapness, appearance, and its general adoption by the retail trade. The signal success of the company is due to the indefatigable application of its originators, Otto and William, to their unshaken confidence, their untiring efforts through bad and worse, to their fixed determination to supply the best and to excel; also to their unvarying policy of giving the selling price the benefit of all saving due to improved methods and increased production. They have always enjoyed the confidence of the jobbers with whom they have business relations. The retailers, too, though not personally acquainted, have from the first taken very kindly to Tanglefoot, and have very generally given their support and co-operation.

NEW PRICE ON PANOPEPTON.

Fairechild Brothers & Foster announce, that on and after March 1, 1894, the trade price on Panopepton will be \$8.50 per dozen.

LIQUEFIED CARBONIC ACID is capable of developing four to five times more power than compressed air. If the carbonic acid is exhausted into the air the cost is too great for ordinary power purposes, but if the exhaust is condensed the engine will have the same theoretical efficiency as an engine using any other vapor through the same range of temperature, and the working pressures will be very high, so that practical difficulties are met with.

Remember that the indexes for each issue are always to be found on first red sheets.

DRUG STORE MANAGEMENT.

The belief that things could be improved has been dominant from the earliest ages down to the present time, and none seem to be more imbued with the idea than the active people of this year of grace 1894. Looking backward at the progress made during comparatively short intervals of time, everything seems possible from the fact that some of the greatest achievements are really simple affairs when familiarity makes us acquainted with their details. But in looking forward, there are so many in art and science who can tell us what is wanted, but display a great poverty of practical suggestions when the initiative is to be taken. However, the belief prevails. It is constantly bringing us good results and its scope is unlimited.

In applying this idea to practical drug store management, past progress points to something still better. Until the average druggist is willing to admit that perfection has been reached, changes from manners and methods which have become conventional will be the order of the day, and the discussion of such matters will be an open one.

The growth of pharmacy from its earliest beginnings has always been a favorite theme for pharmaceutical writers, and detailed descriptions of the shops of the early apothecaries are given which excite our sympathy for the fathers of the art. At the same time it is perhaps fortunate that at present we cannot read the history of pharmacy which will be written two hundred years hence. If contentment and satisfaction with existing conditions had been characteristic of human nature, we can imagine that the drug store of the present might have resembled the "needy shop" with "beggarly array of empty boxes, green earthen pots, bladders, musty seeds, thinly scattered to make up a show," as described by the impassioned Romeo. The incident which gives rise to this description might, in the light of history as reflected in fiction, be regarded as the turning point in the career of the "cattiff wretch" who violated the laws of Mantua and sold a dram of theatrical poison for forty ducats to the famous scion of the house of Montague. We might imagine that after purchasing food and alleviating the "misery which had worn him to the bones," the people of Mantua were informed that "Signor Apothecary, who runs a drug store at the northeast corner of Capulet Square, had purchased an entirely new outfit, consisting of quarter-sawed oak fixtures, show cases, shelf ware, etc., and, as the Bard of Avon was not afraid of anachronisms, it might be proper to add that he purchased an elegant new soda fountain. The people, like those of the present day, noting such an improvement in the selling place of drugs, immediately began buying medicines, with the consequence that a new chapter was added to the record of pharmaceutical evolution.

Another instance of drug store arrangement which fiction records is found in the establishment of "Sawyer, late Nockemorf," the proprietor of which, after recalling Mr. Pickwick with sundry rum punches, compounded and dispensed through the agency of the mortar and graduates, gravely informed him in regard to the fixtures of the pharmacy, that half the drawers had nothing in them, the other half would not open, and that hardly anything in the shop was real except the leeches, and they were second-hand.

This account is useful as an enduring record of the fact that pharmacists of less than one hundred years ago had "back rooms." The origin of the show glasses of the apothecary has been laboriously traced back to a period of considerable antiquity and the facts duly noted in the annals of pharmacy, but polite literature, in the form of Tenneyson's "Maud," will forever bear witness that in the nineteenth century,

"Shoo must lie down arr'd,

For the villainous centre-bits
Grind on the wafel-ears,

In the hush of the moonless nights.

While another is cheating the sick

Of a few last gasps as he sits

To pestle his poison'd poison

Behind his crimson lights."

While this latter instance is undoubtedly a tirade against "substitution," the identity of one of the principal decorative features of the drug store of the present day is quite clearly established.

The modern drug store has long received due credit for the position it occupies in the social economy of its neighborhood. Its portals swing open to the man who does not know what he wants, or has failed to get what he wants elsewhere, and the great variety of demands to which it must cater through its various departments necessarily affords a great range for the arrangement of such departments. The appointments now almost universal in pharmacies seem to answer their purpose fairly well, but it is quite frequently the case that a man is found who says that he never yet has seen a drug store that was arranged exactly to suit him. It is of this man that we must expect great things in the future.

From the standpoint of strict utility there is one feature of drug store arrangement which might be considered as anomalous. Every pharmacist who pretends a regard for well-established proprieties makes it a point to place upon one side of his store at least a long line of shelving upon which are displayed elaborately wrought and lettered bottles and jars whose chief mission seems to be to create a certain amount of awe on the part of the public which vainly tries to read the formidable names thereon, and to engage the attention of the apprentice in keeping them clean. These bottles are but rarely disturbed by any other person, as the actual work of dispensing prescriptions is almost always conducted behind a shelved structure in the rear, where are found the real drugs of the establishment, many of the preparations of the "display shelves" being duplicated upon the "working shelves."

This feature is mentioned not in a spirit of captious criticism, but more with the idea of developing an answer to the "why?" which inevitably arises when the condition is noted. Is it not possible that even pharmacists are doing much work, and expending some money in doing some things, simply because they have been done heretofore? This arrangement may possess advantages which more than overbalance its disadvantages, but the man who never saw a pharmacy that was arranged to suit him may be able to decide the question for us. There are so many points to be considered in arranging a drug store that even our writers of text books upon pharmacy, who submit plans for such a purpose, do so with a bill of exceptions. Acting upon the idea, how-

ever, that the proper place for drugs is in close proximity to the place where they are to be used in dispensing, a plan is submitted herewith in which an endeavor is made to illustrate that idea. As usual, a quite lengthy bill of exceptions goes with this plan, which is offered not so much with the view of indicating just how a store should be arranged, but more for the purpose of finding out how many bet-

line which are usually dispensed from the ordinary shelfware and drawers. The shelves upon the opposite side of the table contain all the drugs necessary for prescription work, and should also have a well-designed poison closet in connection therewith. There are many conflicting ideas upon the best construction for this necessary fixture, but it is believed that a locked closet—one that is locked with a spring lock, and can only be opened with a key, with an arrangement which prevents its being left open, is the best arrangement, as an absent-minded person is not very likely to get the wrong drug from it after going through the very definite operation of unlocking it. It will be observed that the dispenser is isolated as much as possible from all disturbing influences, as it is believed that the practice of constructing prescription cases so that the operations of the store can be watched by the dispenser, is one that seriously interferes with the careful work which is expected of him, and in cases where the store is left in the charge of one man the fixtures and display of goods in the front of the store should be of a character which is a safeguard against shoplifting.

Around the walls of the rear of the room are found the sink, closets, various utensils and fixtures for laboratory work, and the entrance to the cellar, which will next engage our attention. This room is a most valuable adjunct to the modern drug store, and at the same time its convenient arrangement seems to be most universally neglected. As a store room for heavy goods, for articles in original packages and stock not affected by a low temperature or dampness, it is by far the "best room" in the house. Of course, it is taken for granted that the cellar is dry, light and well ventilated. In the plan submitted the cellar is reached from the

cellar as have been removed from the packing cases. On the opposite side of the cellar, extending half its length, is placed shelving for goods and preparations kept in stock bottles and other containers. The remaining space along the same wall is occupied by a raised platform of suitable height, extending some distance from the wall, upon which are placed liquids, liquors, etc., kept in barrels. Along the rear wall and occupying the space between the platform mentioned and the outside entrance, is a space provided with a suitable floor, and divided off from the rest of the cellar, devoted wholly to the storage of acids, inflammable goods, etc. Shelving also extends along the front end of the cellar. In the center of the room is placed a rectangular platform, several inches in height, for the storage of heavy goods, and such drugs and chemicals as are sold from the original package, barrel, box or other container. In this category may be classed coppers, sal-soda, whiting, sulphur, brimstone, Epsom salt, Glauber salt, flaxseed, etc. A suitable place should also be provided for the storage of oils, turpentine, varnish, etc. In the cellar may also be situated a pharmaceutical laboratory containing the necessary furniture, and such apparatus as the demands of the business require.

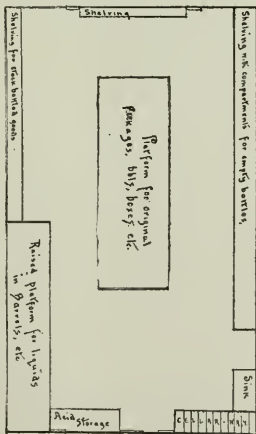
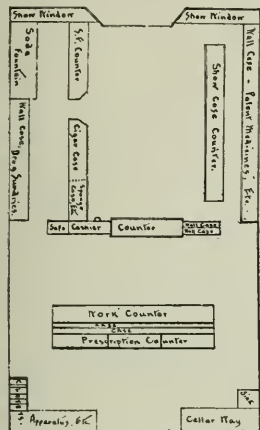
TRADE IN TAHITI—1892.

The United States consul at Tahiti, in his report on the trade of that island, says: "Vanilla beans have decreased greatly in value during the past two years, owing to the overstocking of the San Francisco market. During the month of December they enhanced slightly in value; but no marked improvement can be reported, and in my opinion, none will be realized until the fifteen tons of Tahitian vanilla in San Francisco are sold. America is the largest market for the Tahitian vanilla, and all grown on this island finds a market there, with perhaps the exception of about one ton, which is sent to other countries. This year there were exported to all countries during 1892, 25,560 pounds of vanilla, valued at \$38,599. Owing to the very low prices paid for vanilla beans this year, some native planters have neglected to inoculate their plantations, and in consequence next year's crop will be at least two or three tons less than that of 1892. This drop in Tahiti vanilla was caused by the great quantity of improperly cured beans which have been sent to San Francisco during the past few years. Natives have become very careless in the curing process, many of them sending their beans to market without having the water first extracted, and consequently when they arrive in San Francisco they are rotten. I would therefore caution all buyers in the United States carefully to examine all vanilla coming from Tahiti before purchasing, as the outside appearance of a bundle may be all right when the inside will contain perhaps twenty to thirty rotten beans."

ter ones there are in this country." The sketch shown is for an establishment where several persons are employed, and is intended to point out a number of features which would seem desirable. The plan is such that it can be adapted to suit the dimensions and space usually found in the ordinary store building. It will be observed that the front portion of the store is devoted entirely to the display of "original package" goods, patent medicines, drug sundries, cigars, sponges, etc., and the soda fountain, while the rear portion is the workshop of the establishment, and contains all the articles of the apothecary's art which require his professional attention before they are ready for the public. The soda fountain is placed at the left-hand corner of the room, where it is easily reached from the street and is in a position to advertise itself. For the same reason the cigar case immediately adjoins it. Midway between the front and rear of the room, dividing it in the middle, is placed a counter, at one end of which are two wall cases, back to back, and at the other the cashier's desk and safe, both being built in the counter. This counter space is utilized for wrapping and the transaction of the general business of the store. The rear portion of the room back of this counter is the workshop proper, and the chief article of furniture consists of a long and wide table, or a similar arrangement of a base with drawers, upon which are placed two sections of shelving, back to back, the table or base being wide enough to allow a good working space in front of each section, that facing the counter being used as a work table for weighing, etc., while that in the rear is to be used as a prescription counter, which is long enough to accommodate at least three dispensers. The shelving facing the front of the store contains all those articles in the drug and chemical

ground floor by a stairway in one of the rear corners. Just in front of the stairs, and directly underneath the water supply on the upper floor, is placed the sink and a well-arranged set of bottle racks and washing troughs, the floor space under these being so arranged as to admit of hasty drainage and ready drying. Along one side of the cellar wall is placed shelving with compartments systematically arranged as to sizes, for such empty bot-

The Birney Catarrhal Powder Co., of Chicago, recently obtained an injunction against J. H. Wells, druggist, corner of Randolph and Dearborn streets, and a lawyer named Dearbich, who were operating under the name of the California Catarrhal Cure Co., and were using advertising matter and containers which it is claimed very closely resemble those of the Birney Co.



PURE FOOD AND DRUGS.

The text is given below of a "pure food" bill which was introduced into the House of Representatives a few weeks ago by Mr. Hatch, of Missouri. This action will recall the fate of the Paddock bill which occupied the attention of the preceding Congress, but it is claimed that the present bill is a great improvement over the former and is likely to find many friends among our legislators when it comes up for debate. In view of the fact that different state boards of health and sanitary officers have frequently felt the need of an authoritative definition of adulteration, the introduction of this bill seems quite opportune:

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the introductory words of the act, "Territory, or the District of Columbia, from any other State or Territory or the District of Columbia, or from any foreign country, or of any article of food or drugs which is adulterated or misbranded within the meaning of this act is hereby prohibited, and any person who shall knowingly violate any provision of this act shall be guilty of a misdemeanor, and for such offense be fined not exceeding two hundred dollars for the first offense, and for each subsequent offense not exceeding three hundred dollars, or be imprisoned not exceeding one year, or both, in the discretion of the court.

Sec. 2. That the term "drug" as used in this act shall include all medicines for internal or external use. The term "food" as used herein shall include all articles used for food or drink by man, whether simple, mixed, or compound. The term "misbranded" as used herein shall include all drugs, articles of food, or articles which enter into the composition of food, the package or label of which shall bear any statement, purporting to name ingredients of the article, and which is retained or not being contained in such article, which statement shall be false in any particular.

Sec. 3. That for the purposes of this act, an article shall be deemed to be adulterated—

First. If when sold under or by a name recognized in the United States Pharmacopoeia, it differs from the standard of strength, quality, or purity according to the tests laid down therein.

Second. If when sold under or by a name not recognized in the United States Pharmacopoeia, but which is found in any other pharmacopoeia, or other standard work on standard medicine, it differs materially from the standard of strength, quality, or purity according to the tests laid down in said work.

Third. If its strength or purity fall below the professed standard under which it is sold.

Fourth. If it be an imitation of or substituted for the specific name of another article.

In the case of food or drink—

First. If any substance or substances which have been mixed and prepared with it so as to reduce or lower or injure or affect its quality or strength, so that such product, when offered for sale, shall be adulterated, and shall tend to deceive the purchaser.

Second. If any inferior substance or substances has or have been substituted wholly or in part for the article, so that the product, when offered for sale, shall tend to deceive the purchaser.

Third. If any valuable constituent of the article has been wholly or in part abstracted, so that the product, when sold, shall tend to deceive the purchaser.

Fourth. If it be an imitation of, or substituted for the specific name, brand, or trade mark of another article.

Fifth. If it be mixed, colored, powdered, or stained in a manner whereby damage is concealed, so that such product, when sold, shall tend to deceive the purchaser.

Sixth. If it contain any added poisonous ingredient, or any ingredient which may render such article injurious to the health of any person consuming it.

Seventh. If it consists of the whole or any part of a diseased, filthy, decomposed, or putrid animal or vegetable substance, or any portion of an animal unfit for food, whether manufactured or not,

or if it is the product of a diseased animal, or of an animal that has died otherwise than by slaughter. Provided, That an article of food or drug, which does not contain any added poisonous ingredient, shall not be deemed to be adulterated or misbranded in the following cases:

First. In the case of mixtures or compounds which may be now, or from time to time hereafter known as articles of food under their own distinctive names, and not included in definition fourth of this section.

Second. In the case of articles labeled, branded, or tagged so as to plainly indicate to increase the bulk, weight, or measure of the food or drug, or conceal the inferior quality thereof: Provided, That the same shall be labeled, branded, or tagged so as to provide for comparison in this act shall be construed as requiring or compelling proprietors or manufacturers of proprietary medicines to so label or tag to disclose their trade-fraud.

Third. When any matter or ingredient has been added to the food or drug, because the same is required for the production or preparation thereof as an article of commerce, in a state fit for carriage or consumption, and not fraudulently to increase the bulk, weight, or measure of the food or drug, or conceal the inferior quality thereof: Provided, That the same shall be labeled, branded, or tagged so as to provide for comparison in this act shall be construed as requiring or compelling proprietors or manufacturers of proprietary medicines to so label or tag to disclose their trade-fraud.

Fourth. Where the food or drug is unavoidably mixed with some extraneous matter in the process of collection or preparation.

Sec. 4. That this act shall not be construed to interfere with commerce wholly in any State, territory, or possession, or else of their police powers by the several States.

Sec. 5. Any article of food or drug that is adulterated or misbranded, within the meaning of this act, and is transported, or is being transported from one State to another for sale, and is still in the original or unbroken packages, shall be liable to be proceeded against, in any district court of the United States, within the district where the same is found and seized for confiscation by a process of libel for condemnation. And if it is found to be condemned as being adulterated or misbranded, the same shall be disposed of as the said court may direct, and the proceeds of the sale, less the costs and charges, shall be paid into the Treasury of the United States. The proceedings in such libel cases shall conform as near as may be to proceedings in admiralty, except that either party may demand trial by jury of any issue of fact joined in such case, and all such proceedings shall be at the suit of and in the name of the United States.

GERMAN INDUSTRIAL AND COMMERCIAL SITUATION.

The manufacturing and commercial interests of Germany have reached a stage during the closing months of 1893 which is in some respects unprecedented and offers material for an interesting study. There is, on the one hand, general and vigorous complaint on the part of every class which is likely to be affected by the new forms of taxation that are now under discussion in the Reichstag that business throughout the empire is at a low ebb, profits steadily decreasing, and the cost of living greater than ever before. On the other hand, wherever precise statistics are accessible there seems to be evidence of normal activity, and in many cases of increased product and liberal profits.

The Farbwerke, a large manufactory of aniline colors and chemical products at Hoechst, near Frankfort, will declare at the close of this year a dividend of 26 per cent on its capital of 15,000,000 marks; the aniline and chemical works of Friedrich Bayer, at Elberfeld, will repeat its last year's dividend of 15 per cent; and the Badische Aniline and Soda Fabrik, at Ludwigshaven, near Mannheim, is equally prosperous. And yet all of these companies suffered more or less from the serious prostration of their American export trade during the third quarter of the pres-

ent year, but from which it is now rapidly recovering. It is well understood that in all the standard aniline dyes, the manufacture of which is open to general competition, prices have been reduced to very close margins during recent years, but the prosperity of that branch of business is well maintained by the large profits derived from special patented colors and medicinal preparations, of which each of the large German chemical firms own a number that are patent in its own name in the United States, thus securing to the patentee a monopoly of its production and sale.

A notable example of this is antipyrine, which is manufactured exclusively under the Knorr patents by the Farbwerke at Hoechst. It is estimated that not less than 75 tons of this preparation are manufactured and sold annually, representing, according to one authority, a value of \$1,452,000, the greater part of which is clear profit.

The paper manufacture is likewise, to all appearances, prosperous and profitable, although complaint is heard of the low prices and the serious competition of Norway and Sweden in the manufacture of wood pulp. At Aschaffenburg, an important center of the pulp and paper industries on the River Main, some miles above Frankfort, a number of the mills are working night and day, and one company is making important additions to its already extensive plant. It is noteworthy, in connection with this subject, that a large portion of the American supply of photographic paper is made at Malmédy, a town in Northwestern Germany near the Belgian frontier, whence it is brought to Aschaffenburg and there coated with baryta, then exported to the United States and sensitized at factories in Western New York and elsewhere, and finally sold to consumers throughout our country and exported to Mexico, South America and even to England.

Continuing this examination into the general foreign trade of Germany, for which only the returns of the first three-quarters of the current calendar year are at present accessible, the situation appears to be, on the whole, more favorable than would be expected from the generally despairing tone of the commercial press. The total imports of Germany during the first nine months of this year amounted in weight to 21,935,923 tons, an increase of 1.06 per cent over those of the same months in the preceding year.

Exports during the same period reached 15,264,793 tons, an increase of 6.16 per cent over those of 1892. Putting together imports and exports, the aggregate shows an increase in weight of 3.09 per cent and in value of one per cent over the totals for the same nine months of 1892. This is certainly not a discouraging exhibit for a year of such general depression as the present.

The salient features of the present situation are therefore sufficiently obvious. While nearly all values are extremely low, and profits in many cases meagre, this depression in value of product has been met in many instances in a great degree by corresponding reductions in wages, which (particularly in Berlin and throughout Saxony) are steadily declining. So that, on the whole, the volume of foreign trade has been more than maintained, and the Germans are in good working condition and ready to take prompt advantage of

any improvement that may occur in the American or other foreign demand. Probably no nation in the world is at present more actively or systematically engaged in efforts to extend its foreign export trade than Germany. Profiting not only by the acknowledged success of their own exhibits at the Columbian Exposition, but by all the hints and suggestions that the German manufacturers obtained there from a careful study of the products of other nations, they are now organizing syndicates and associations, each representing a different industry, the members of which contribute to a fund to be expended in sending expert salesmen into foreign markets, studying the wants of each country, and by personal application pushing the sale of German manufactures. In all this they are setting an example that American exporters might profitably imitate.

As manufacturers the Germans may lack somewhat in originality, but they make up for this by their cleverness in copying and adopting promptly the best improvements originated by their rivals in other countries. There are few really valuable American machines or implements which are not more or less closely imitated and abundantly produced in this country. These imitations have been thus far, with few exceptions, inferior in finish and perfection of workmanship to the originals, but their quality is steadily improving; and the tactics of the German exporters will need to be met by equally vigorous and intelligent efforts on the part of our merchants if the latter expect to maintain and improve their standing in the markets of South America, Australia and the east.—U. S. Consular Report, December 22, 1893.

ITALIAN SULPHUR OUTPUT.

Under date of November, 1893, Consul-General Jones, of Rome, transmits the following statistics taken from official sources:

The total production of brimstone in 1892 was 415,555 tons, an increase of 23,027 tons over the output for 1891. The increase is almost entirely due to the greater production of the Sicilian mines, which more than made up for the falling off at the mines in the district of Bologna and Avelino. There was a small increase—406 tons—from the Calabrian mines. The average price of brimstone having fallen from \$23 16 to \$19 27 per ton, the value of the total output in 1893 was \$3,070,260—\$109,135 less than the value of that produced in 1891. The Sicilian mines employed 33,171 hands or 902 more than in 1891; and 2,672,532 tons of mineral were treated, with a yield of 14.067 per cent of brimstone. The average price in 1892 of the several qualities of brimstone delivered at the ports, free on board, was \$19 57, or \$4 20 per ton less than in 1891.

Over 300,000 barrels of vinegar are produced each year in the State of New York.

The Century Manufacturing Co., Warren, Pa., has been organized to manufacture the Century Catarrh Cure and other proprietary preparations.

Chas. Lippincott & Co. cordially invite all druggists visiting Chicago to call on them at their elegant new show rooms, 264-266 Fifth avenue, where a very handsome display of soda apparatus will be seen.

TRADE NOTES.

Indexes on first four red sheets.

W. H. Taylor & Co., 29 Broadway, N. Y., have succeeded Culbert & Taylor.

M. F. Foster & Co., New York City, manufacturers of cigars, have succeeded Hahn, Brussels & Co.

Von Mohl Co., Cincinnati, O., manufactures and sells specialties to the drug trade for the cure of rheumatism, fits, dyspepsia, catarrh, etc.

The H. W. Comstock Remedy Co., Inc., Lafayette, Ind., manufactures a line of proprietary medicines. Their capital stock is \$50,000, of which \$10,000 has been paid in.

As the first step toward getting acquainted all that John Lucas & Co., of Philadelphia ask is that you drop them a postal and get their paint color cards. They give their reasons for this in their advertisement in this issue.

Are you taking advantage of the reduced prices which the A. P. W. Paper Co., of Albany, are offering on their popular brands of toilet paper. Their new catalogue and price list shows how you can sell paper for what it formerly cost you. Write for it.

On page 286 of the Era Druggists' Directory, last edition, the name of E. J. Hussey & Co. appears as Drug Brokers. This they inform us is an error, as they should appear under the head of "Introducers of New Novelties of Merit."

J. B. Burr & Co., Hartford, Conn., are ready to convince the drug trade that they can save them money on prescription blanks, and all other kinds of druggist's printing. They will do this by sending samples and price lists to all who will apply for them.

Smith & Painter, of Wilmington, Del., say that everyone interested in soda water should have their catalogue, which is full of practical suggestions and recipes. As this is sent free upon application, the investment of a postal card in asking for it may be considered a good one.

The Star & Crescent Mills Co., of Philadelphia, have been quite successful in introducing their fine bath requisites to the retail drug trade, and they are now making arrangements to place their goods with one jobber in each large city. The attention of the jobbing trade is directed to their "Hint to Jobbers" in this issue.

"A trial is more convincing than talk" is what the Flower City Cork Works, Rochester, N. Y., have to say regarding their Red Star Brand XXX Corks. If your corks do not suit you in every respect, they suggest that it is time you made a trial of their goods. They invite comparison with all other brands.

The Cascara Laxative Syrup, prepared only for the drug trade by Irwin, Kirkland & Co., of Decatur, Ills., is positively the finest laxative and cathartic on the market. It is composed of their celebrated Cascara Aromatic Fluid Extract in combination with Buckthorn, Senna, Juglans, Rochelle Salt and Aromatics. It is a large and handsome package; costs only 18 cents and retails at 50. Send for sample wrapper.—Adv.



Wm. A. RICHARDSON.

Wm. A. Richardson is a native of New Haven, Conn., where his father was for many years engaged in the wholesale drug business. He received his early education in the schools of his native city and afterward went to Boston and graduated from the Massachusetts College of Pharmacy. His first employment after leaving this school was with the old aristocratic firm of dispensing chemists, Melvin & Badger, and he was subsequently employed by Gilman Brothers, wholesale druggists of the same city. In 1839 Mr. Richardson went to Chicago as the western representative of the Maltine Manufacturing Co., of New York, and in the summer of 1843 entered the employ of Frederick Stearns & Co., of Detroit, Mich., as their Chicago representative, in which position he has remained until quite recently, when he was appointed resident manager of the London office of F. Stearns & Co., at 25 Lime street, London, E. C., England, and sailed for his future home on the S. S. Lucania on March 10th. Mr. Richardson has been given carte blanche in the matter of introducing in Great Britain and on the continent the well-known specialties and pharmaceuticals of the house he represents. Mr. Richardson takes with him the good wishes of a large personal and business acquaintance in New York, Boston, Chicago and other drug centers of this country, and his previous acquaintance with London and Paris, and wide experience with pharmaceutical matters will no doubt contribute to his success in his new field of effort.

Altoona, Pa., January 17, 1894.

H. D. Cushman, Three Rivers, Mich.:
Dear Sir—Your Menthol Inhalers are the best on the market; they are the only ones we can sell without a great deal of talking. They sell on their merits. Please send me some advertising matter. Yours, McMurtrie & Akers.

Parties who desire to put upon the market anything in the pharmaceutical line, should write to B. M. Butler, pharmaceutical chemist, Armitage avenue and N. Pauline street, Chicago, for estimates. Mr. Butler has a large laboratory fully equipped for such work, and is in a position to quote satisfactory prices.

The Chicago Medical Specialty House, 38 Dearborn street, Chicago, have an article in the "Knap" Ladies' Syringe which has proven satisfactory with all users, and affords a liberal profit to the drug trade. Write for detailed description, and see their prices on another page.

In the last issue of our Druggists' Directory we classified the Sagar Drug Co., Duluth, Minn., as wholesale and retail druggists. This, they inform us, is an error. They are an exclusive jobbing house, and have no intention to retail, nor have they any facilities for carrying on that branch of the drug business.

The success and solid reputation of Dr. D. Jayne's Family Medicines have been gained by many years of trial, and the favorable verdict regarding their merits comes from the public itself. Jayne's almanac has always been a favorite on account of its conservative tone and plain language, and their distribution always assists the demand for the goods.

Note the change which W. E. Mattern, 164 Millard avenue, Chicago, makes in his advertisement in this issue. He will send 25 samples free with one dozen Mattern's Headache Powders at 60 cents per dozen and pay transportation. Those who are not acquainted with his preparation can procure a sample box free upon application.

The Flag Salt Remedy Co., of Savannah, N. Y., report a steadily increasing demand for Flag Salt, the new remedy for headache and neuralgia. To further increase the sale of this preparation they now offer 75 samples, with every order for one dozen 25-cent boxes, and one dozen 10-cent packages accompanied by \$2. Write for free sample box.

The Economic Hopking Roll Paper Cutter is for sale by all jobbers, but the dealer who contemplates an improvement in his methods of wrapping goods, should write to the American Roll Paper Co., of St. Louis, for their catalogue, which describes the various sizes, and gives prices for roll paper, both printed and plain.

Every druggist knows that H. Plantek & Son, 234 William street, New York, manufacture capsules, filled and unfilled, for they have been in the business since 1836, but not every druggist has their latest price list. That is a point which they desire to emphasize. You had better send for it and find out what is new in the way of products and prices.

RIVERMOUTH SACHETTES.

It is surprising how quickly the Rivermouth Sachettes have sprung into popularity. "Freston, of New Hampshire," has evidently struck the right key-note. He offers five odors only and claims that they please the most critical trade better than a larger assortment. See his "ad." in this issue.

SAXE'S NEW GUIDE.

A fine soda fountain, good location, and good material are quite necessary for success, but there is one other requisite which forms the "cap-sheaf" for this list of indispensables. It is the "knowing how" to make use of the materials concerned in the making of a glass of soda that counts. It is this fact that renders "Saxe's New Guide" for soda dispensers a valuable aid to the druggist, who intends to place his soda fountain business in a position which will attract the public. The price of this book has been reduced to 43, and the enterprising druggist who desires a little more education on the subject upon which it treats, should begin his schooling at once, and be in readiness when the season opens.

The Hart Manufacturing Co., 13-17 North Jefferson street, Chicago, engaged in the manufacture of soda fountains in 1873, and their success in building up a large trade can be attributed to the fact that their goods and business methods are of the kind described in their advertisement in this issue. Send for designs and prices.

Special attention is directed to what is believed to be a decided improvement in the Index of Goods which was inaugurated in the issue of January list. It is believed that the readers of the Era can now, by turning to pages 21 and 23, on the first red sheets in each issue, easily find any article in which they may be interested.

Beeswax branded "T. L." and "Diamond L" is guaranteed by the manufacturer, Theodor Leonhard, Patterson, N. J., as being strictly pure, sun-bleached, without the use of chemicals. The superiority of these brands can be determined by obtaining sample cakes, which will be sent free upon application. Mention the Era when writing.

In selecting brushes it is a good idea to obtain the kind the painter wants. In looking at a brush that discriminating individual usually looks to see if the name "Whiting" is stamped on the brush. If he finds this name he then closes the matter by saying, "Wrap it up." The discriminating dealer does very much the same when ordering brushes from the jobbers.

With unequalled facilities both in the matter of procuring raw material and having the necessary appliances and capital for working it up and placing it upon the market, the Cudahy Pharmaceutical Co., South Omaha, Neb., claim to be able to make a pepsin which stands all the tests of the U. S. P., 1890, and to sell it at prices which place them far beyond competitors. Send for some of "Rex" brand of pepsin and test it.



The Tyer Rubber Co., Andover, Mass., in presenting to the trade their "Tyrian" No. 3 Oil Atomizer, an illustration of which is shown above, direct special attention to new and desirable features as follows: The guard tube, extending into the bottle, and through which the liquid tube passes, prevents the escape of the liquid in whatever position the bottle may be placed, thus overcoming one of the most serious faults with oil atomizers, namely, the oil running out upon the bottle or bulb, and soiling the hands or clothing. The air in passing through the air point, completely surrounds the liquid point, thus insuring a fine spray without dripping. The liquid tube is attached by a screw thread, and can be easily removed for cleaning, and the bulb is furnished with a quick-acting aluminum valve. Write for prices.

The germ proof pressure and non-pressure water filters manufactured by the McConnell Filter Co., 13 Niagara street, Buffalo, have been tested and tried, and their favorable reputation rests upon a record of good results which they have given. They are especially adapted for druggists' use, soda fountains, etc. Write for circular containing full description and prices.

The Distilled Extracts for soda fountain use, manufactured by Dr. H. L. Bowker & Co., 257 Franklin street, Boston, have met with favor at the hands of the drug trade ever since they were introduced in 1864. They are still popular, with Birch Beer, Root Beer, Bitter Beer and Ginger Ale as especial favorites. Send for fifty-page catalogue describing the goods manufactured by this firm.

"Webber-Pepsin, S. & D." has always had an excellent reputation for its digestive power with both the pharmaceutical and medical professions, and is an especial favorite with the latter. But as the question of cheapness is now considered in connection with every commodity, it naturally had to receive attention from the manufacturers of this brand. They now show the pharmacist that official pepsin, U. S. P., 1890, can be made from Webber-Pepsin at a cost of sixty-three and a half cents per ounce. Write Sharp & Dohme, 41 John street, New York, for full particulars regarding this product.

WORLD'S FAIR PICTURES.

Later parts of the Michigan Central's World's Fair Portfolio fully justify the claim made upon the publication of the first number, that it was the best, the finest and the most artistic of popular publications on the White City.

Each part contains sixteen (16) large plates and is sold for only ten cents. If you haven't seen it, the nearest Michigan Central ticket agent will show it to you, or you can write to O. W. Ruggles, G. P. and T. Agent, Chicago.

HAVE YOU SEEN IT?

Eastern Star Perfume.



The latest success in the line of popular odors made by Foote & Jenks. It is very delicate and delightfully fragrant, yet its endurance and lasting properties when applied to the handkerchief or clothing is perfectly wonderful.

It is pre-eminently a favorite with ladies, and you know the ladies use most of the perfume. Most druggists have some lady customers who

are members of the order of the "Eastern Star" in whose honor this odor was named. Most gentlemen are fond of perfume—also of ladies—and take very kindly to the "Eastern Star" order a bottle of your jobber, or send to Foote & Jenks for sample and price list.

Witch Hazel of itself possesses many curative virtues and it enjoys a favorable reputation as a domestic remedy with the public. When it is put up as an ointment, or rather as Witch Hazel Jelly, as is done by the Mayell-Hopp Co., Cleveland, O., there is sure to be a demand for it. It is just the thing for chapped hands, sore lips and for use after shaving.

When you need any Acetanilid, do not fail to correspond with the Herf & Frerichs Chemical Co., St. Louis, Mo. Their quality is very white and in strict accordance with the requirements of the U. S. P. They are also making a specialty of supplying a very fine, impalpable powder, which is largely used for manufacturing pills, tablets, etc., and is a most excellent quality in all respects.

We hear of all sorts of leaders these days. There is the political leader, the labor leader, and the E. N. Rowell Co. leader. The latter, however, should be placed first in the procession where all the druggists can see it. Printed and lithographed label pill boxes are offered in 10-gross lots at 60 and 70 cents per gross respectively and their advertisement is headed "Can you buy at these prices?"

Attention is directed to the offer in connection with "Old Purity" whiskey, advertised upon another page in this issue. This product is true to name, and its sale is protected by registered label and trade mark, thus creating confidence in the mind of the consumer. The wholesale drug trade is handling this brand extensively, as will be seen by the list given in connection with the advertisement.

Notwithstanding the depression during the past year, The Tilden Co., of New Lebanon, N. Y., found the demand for their preparations so active that their employes had the pleasure of being paid for overtime. As many other houses in the same line only averaged three-quarters time or less, the Tilden people consider this a very handsome testimonial of the regard which the trade has for their goods.

Have you received that Croton Oil Plaster which the Joel A. Connolly Plaster Co., of Boston, Mass., offer to send free to every druggist? These plasters afford an excellent means of administering this oil, and have commanded the attention of the medical profession wherever they are brought to their notice. You can easily do this in your own community. Write for particulars regarding the therapeutics of Croton Oil Plasters.

Wm. B. Burk & Co., of Philadelphia, will celebrate on the 1st of April next, the 25th anniversary of their entering the sponge business. During this time they have become known to the entire drug trade in the east, also in the western drug centers. Square dealing has made customers their friends and largely contributed to their great success. They announce having just received a large importation of Turkish sponges, consisting of bath, toilet, surgeons' and fine flat sponges, which they are prepared to offer at extremely low prices, and druggists sending for a few simple cases can be assured of a satisfactory bargain. Mr. W. B. Burk makes annual trips to the principal markets of Europe and is known as a careful and close buyer.

Dr. R. R. Lansing, of Detroit, has lately received letters patent both in the United States and Canada, on his process of manufacturing Glassine Labels. His new illustrated catalogue, recently issued, should be in the hands of every druggist who intends to start a new store or refit an old one. On April 1, 1894, Dr. Lansing will open a branch at Windsor, Ont., to accommodate his constantly increasing Canadian business.

The popularity of Antikamnia with the medical profession has caused it to be an important article in the stock of the pharmacist, and the manufacturers are very desirous that the retail drug trade shall have some of the benefits accruing from such popularity. They have therefore placed the preparation in the hands of all the jobbers with a view of having it reach the retail trade in the most convenient manner.

The D. B. Scully Syrup Co., 49-51 River street, Chicago, believe that when pure rock candy is ordered the druggist wants just what he ordered. Instead of furnishing drippings or refined residue, they believe in sending out a syrup made by melting the pure crystals which nature furnishes by an unequaled process of her own. They invite the trade to send for prices on both rock candy and rock candy syrup.

Aristol, Sulophen, Europhen, Losophan, Trional, Salphonal, Phenacetine and Piperazine are all preparations which have come into use within a comparatively short period of time. Every pharmacist should be thoroughly posted regarding these new remedies, and should increase his library by sending to W. H. Schiefelin & Co., New York, for pamphlets describing them.

Beef, Wine and Iron in bulk from \$1.30 to \$1.75 per gallon, according to quantity, and \$2 to \$45 per gross in bottles with fine lithographed labels, are prices which Henry K. Wampole & Co., of Philadelphia, are quoting to the trade. Buying everything in large lots and manufacturing in large quantities are the reasons for these extremely reasonable prices. They furnish samples so that the trade can see that the quality is all right.

The Hammondsport Wine Co., of Hammondsport, N. Y., assure the drug trade that their demands for fine goods, and desire for information concerning the same, will command the preferred attention of the firm. All their products are sold under a guarantee as to purity and keeping qualities, and their Ports, Sherries, Madeiras, Sauternes, Catawbas, Clarets, etc., are particularly recommended for dispensing purposes.

All druggists have more or less frequent use for bottle stoppers, collapsible tubes, pill machines, suppository, bougie, camphor ice and cosmetic moulds and other metal goods, but they do not always like to go to the trouble of ordering from the manufacturer whenever a few of any of these things are wanted. This trouble can all be obviated by procuring the catalogue of A. H. Wirz, 913 to 917 Cherry street, Philadelphia. He manufactures a full line of such goods, and they are handled generally by jobbers. All the retailer has to do is to select from the catalogue and the jobber fills the order.

Klinol, the new antipyretic and analgesic, is finding considerable application in acute rheumatic affections and in migraine and neuralgic pains, its non-toxic and non-depressant properties making it a special favorite with the medical profession. Samples will be sent free to the trade or profession upon application to the manufacturers, The Klinol Company, Cleveland, Ohio.

On February 6th, 1894, a jury in the Court of Common Pleas No. 4, city of Philadelphia, rendered a verdict against James Whitall, Philadelphia, surety for E. W. Hoyt & Co., of Lowell, Mass., in favor of F. Hoyt & Co., Philadelphia, in the sum of \$3,000, for damages sustained. This suit was the outcome of a decision of the Supreme Court in a former suit supporting the Philadelphia firm in their contention that they were justified by right of priority in manufacturing Hoyt's Genuine German Cologne. In this prior suit the bill of the Lowell firm was dismissed by the court, and they were compelled to pay all costs, amounting to \$2,850.50.

The Wm. S. Merrell Chemical Co., Cincinnati, O., believe that "written labels" on fluid extracts should always be looked upon with suspicion. A few houses still fill out "fractional pounds" from larger packages, but the system is being discarded for obvious reasons. To fill "orders as written" is the aim of every jobber who would secure a permanent business, and every action tending to destroy confidence should be avoided. Again, why should the risk of identity and quality be assumed by the jobber when it belongs solely to the manufacturer? The Wm. S. Merrell Chemical Co. take every responsibility connected with their Fluid Extracts in original packages, but decline "to father" any article claiming to be "Merrell's" sent to the dispenser or consumer with a written label.



Wm. H. Armstrong & Co., of Indianapolis, Ind., have lately put upon the market the "Success Nasal Syringe," an illustration of which is shown above. This instrument possesses distinct advantages which make it a very desirable addition to the methods of treating nasal catarrh. By means of a rubber tube with fine perforations attached to a rubber bulb, the fluid is made to flow in fine jets in all directions, thoroughly covering all diseased portions of the nasal cavities. Dealers who have handled this apparatus say it is one of their best sellers. Write for prices to the trade and detailed description.

The Birney Catarrhal Powder, the Masonic Temple, Chicago, make it a point to see that every druggist who has their goods in stock enjoys a good sale for the same. Send in 50 to 100 names of your customers and they will send them free samples with your compliments. Also send for copy of their beautiful picture, "In Suspense," a free sample of the remedy for yourself, and information regarding other special offers which the firm is making. Mention the Era.

As agents for several of the leading oil manufacturers of Europe, George Luenders & Co., 218 Pearl street, New York, are in a position to quote satisfactory prices and furnish goods of the highest quality. They call particular attention to Heine & Co.'s Synthetic Oil of Mustard in original packages, Lauter Flitz' Almond Oil, sweet and bitter, Pure Olive Oil, and the Carlotta Oil of Rose, all of which they ask the trade to specify in ordering.

The season will soon be at hand when people will be asking for deodorizers and disinfectants. The druggist will be well prepared for such demands who can give his customers Bromo-Chloratum. With every order for three dozen, 500 counter wrappers with retailer's name thereon are furnished, and the public will soon be interested in reading such matter. Send in a list of your physicians and the Bromo Chemical Co., of New Lebanon, N. Y., will send them a sample.

The White Rock Mineral Spring Co., of Waukesha, Wis., have lately received from the patent office a certificate of register of the arbitrary word "Ozonate," as a trade mark for the product of White Rock spring. This, in connection with the representation of "Psyche at Nature's Mirror," which, by the way, they claim is the White Rock spring, on account of its great purity and clearness, will surely give them the most complete protection, and at the same time aid in popularizing this healing water.

Beach & Clarridge, 52-58 Eastern avenue, Boston, refer to themselves as the "fountain head" of soda fountain supplies, from the fact that they handle everything in this line which the dispenser needs, and the quality of their goods is such that one trial usually results in a steady demand. All the fruit juices and extracts are manufactured by this firm, and they are also American agents for a great number of foreign specialties, essential oils, etc. Write for catalogue and prices.

The firm of Clough & Macconnell, 132 Nassau street, New York, has by mutual consent dissolved co-partnership, and through an amicable arrangement, divided its business into two distinct branches. Dating from January 1st, 1894, William R. Clough becomes sole proprietor of their Wire Corkscrew Patents and Trade, and will continue the manufacture at Alton, New Hampshire, under the trade name of "The Clough Wire Corkscrew Co.," and James M. Macconnell becomes the sole proprietor of their Decorated, Folding Corkscrew Patents and Trade, and will continue the manufacture at 132 Nassau street, New York.

Remember that all the indexes for this issue will be found upon first four red sheets.

If you desire to retain the esteem of your physicians you must display a willingness to keep posted on all the improvements which are constantly being made in pharmacy. "Koneals" are offered by J. M. Grosvenor & Co., 105 Milk street, Boston, as an improvement over capsules, cachets and wafers for dispensing powdered drugs, and every druggist should send for free sample, and description of the closing apparatus. Advertising matter which never fails to interest the physician will also be sent.

Over six thousand "Star" Ice Shavers manufactured by D. H. Bates & Bro., Dayton, Ohio, are now in use, which fact certainly speaks well for the merits of these machines. They are made of brass, to prevent rusting, are nickel-plated throughout, of handsome design, and the economy in using shaved ice at the soda fountain is so great as to pay for one in a very short time. Each machine is mounted on a marble slab 8 by 14 inches, and makes a handsome ornament in connection with the soda water outfit. Write for detailed description and prices.

Those who are interested in compressed tablets and their manufacture should write to The Searle & Hereth Co., of Chicago, for cuts and information regarding "The Hereth," for which they are the selling agents. It is an entirely new machine, and they claim for it superiority in strength, simplicity and ease of adjustment. If you happen to be in Chicago it will pay you to see it. They have several in operation and refer buyers to others who are using the machine. This firm is a growing one, and visitors to their laboratory are always cordially welcomed.

Nearly all the medicaments which can be exhibited in pillular form can be exhibited quite as readily in cachets, and when the satisfaction of the patient and the convenience of the dispenser are considered there is found to be a strong argument in favor of the employment of the latter. The cachets and filling apparatus of S. Chapreau, of Paris, are giving great satisfaction with pharmacists who have adopted this new method of dispensing drugs in powder form, and those who are unacquainted with these pharmaceutical adjuncts should send for price list and free samples to the American agents, Utard & Co., 3 Union Square, New York.

There are different opinions held by members of the medical profession as to the best temperature at which to sterilize milk, etc., some claiming that the boiling point induces chemical changes which do not favor a condition of perfect nutrition, and advocating a lower temperature, while others adhere to the theory that safety lies in the employment of a temperature of 212 degrees. To meet all these varying requirements Wilmot, Castle & Co., of Rochester, N. Y., have lately made some improvements in the Arnold Steam Sterilizers which adapt them for either high temperature (sterilizing) or low temperature (pasteurizing). This is effected by perforating the inner covers so that leaving off the hood allows sufficient steam to escape to reduce the temperature to 160 or 170 degrees Fahrenheit, while putting the hood on raises the temperature to the boiling point. Write for circular describing this improvement and mention the Era.

While it has been believed for some time that the cresols were much stronger antiseptics and less poisonous than carbolic acid, the fact that they were insoluble in water in their crude form, and the means of rendering them soluble were objectionable, has always militated against their use. Schering has, however, isolated the three cresols, ortho, meta and para, and their mixture has been introduced under the name of "Trioresol," which consists of a water-white, clear liquid, sp. gr. 1.042-1.049, soluble in the proportion of 2 1/2 parts to 100 of water. Full information regarding this preparation may be obtained by addressing the American agents, Schering & Glatz, 55 Maiden Lane, New York.

"Eae only one drop" is the taking injunction which appears upon a strip label around the neck of the bottle containing Hoyt's Perfection perfume manufactured by F. Hoyt & Co., Philadelphia, Pa. This plea for economy which can be properly made on account of the concentration of the odor, and the fact that it is put up in bottles with sprinkler tops, is making this exquisite perfume a quick seller, and dealers will do well to include a sample order for these goods when ordering of their jobbers. In this connection it becomes quite pertinent to ask the trade if they have seen the elegant picture which this firm are sending out to advertise Hoyt's "Dime" and German Cologne. It is an exceedingly fine example of the lithographer's art, and is bringing the firm many admiring comments. It consists of a beautiful landscape in colors, surrounded by butterflies whose bodies are bottles of Hoyt's German Cologne, with wings in natural colors and gold. Every druggist should send for a copy of this beautiful picture, and then prepare for the demand which it is sure to create.



A citrate of magnesia bottle which admits of being opened and closed again without serious detriment to the medicinal qualities of this preparation, is certainly an improvement which will catch the attention of all druggists. Such a bottle is shown in the illustration above, and it is manufactured by the Saltsburg Bottle Works, Saltsburg, Pa. See prices upon this new bottle in advertisement on another page, and in calculating upon the expediency of laying in a stock, be sure to include the satisfaction of customers, which will form quite an item on the profit side of the transaction.

The Upjohn Pill & Granule Co., Kalamazoo, make a specialty of pills under an improved process and the fact that they can make the claim of being the largest exclusive pill manufacturers in the world shows that there is merit in their goods. Every druggist should have their list, which includes over 500 kinds of pills, which they keep constantly in stock.

Kefr Kumyss, in cases of 6 and 12 quart bottles at \$4 per dozen, less 15 per cent to the trade, are the figures which R. E. Rhode, 504 N. Clark street, Chicago, quotes on his product. Kumyss is daily finding an increasing field of usefulness in the hands of the medical profession, and its popularity as a beverage is also extending. Many druggists are finding it a profitable article to handle.

McKesson & Robbins, of New York, present some figures in this issue on their Pure Fruit Juices which may well engage the attention of those about to lay in a stock of such goods for the summer trade. The advantages claimed for these juices are that they are made from fresh fruit, contain no artificial flavoring, retain their flavor indefinitely, and do not ferment nor change—in fact, they are just the kind of goods one would expect from an old, well-established firm like McKesson & Robbins.

The original and artistic design which characterize the white wire work of the Philadelphia Ornamental Wire Co., 18 North Sixth street, Philadelphia, have rendered the goods of this firm very popular with manufacturers and druggists who desire something attractive in the way of display stands, etc., for pharmaceutical preparations and novelties. This is shown by the fact that the Bromo Drug Co., of Baltimore, recently placed a large order with this firm for display stands. Write for estimates on goods of this kind made to order.

From the fact that the manufacture of Peroxide of Hydrogen is accomplished by a complicated process, there has always been a great variance in the products of the different manufacturers. Now that a standard has been given by the U. S. P., 1890, the manufacturers of this product know exactly what is required of them. Larkin & Scheffer, St. Louis, Mo., call the attention of the drug trade to their product as fulfilling all the requirements of the tests given, and invite a trial of their goods on the part of those who desire "an ideally perfect product."

THERE MUST BE A DEMAND FOR IT.

Mr. R. Matchett, Esq.: Dear Sir—We testify, with pleasure, to the fact that the "Four-Fold Liniment" is the leading liniment in our sales. It has had less advertising than any other liniment we handle, and yet steadily increases in sale. From personal knowledge of its merits, we recommend its general introduction.

Yours truly,

GEO. A. KELLY & CO.,

Wholesale druggists, corner First avenue and Wood street, Pittsburgh, Pa.

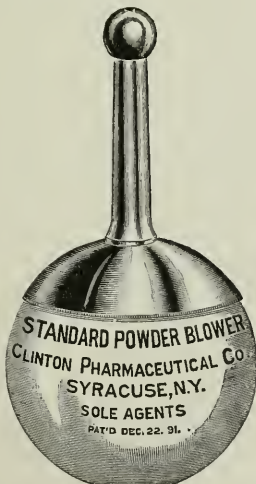
We sell more of your "Four-Fold Liniment" than any other, and probably more than all others combined. In our opinion, it has merits to hold its own wherever introduced.

A. C. HENDERSON & SON, Wholesale druggists, 50 Seventh avenue, Pittsburgh, Pa.

The Parfumerie Delletrez has just issued a price list of the perfumes and soaps carried in stock at the American office, 41 and 43 Warren street, New York. As soon as the Wilson bill is passed, Delletrez will issue a new list with prices according to the new tariff. The prices of the list are all net, but they allow a discount of 10 per cent to all customers who purchase \$300 worth of goods in one year. Amaryllis du Japon, their leading odor, is extensively advertised, and should be found in the stock of every enterprising druggist.

A. D. Puffer & Sons, 38 to 48 Portland street, Boston, recognize the fact that silver and the tariff have had a great deal to do in unsettling the financial affairs of the country, but they are also alive to the greater fact that prices must be graded to suit hard times, and this they have done. They believe that a large soda water business is to be done this summer and they propose to be one of the parties engaged in it. Their new illustrated catalogue shows to some extent how they are going to do this, and their prices tell the rest.

The Hero Fruit Jar Co., of Philadelphia, announce that they have at last found a bottle stopper which will prevent the refilling of bottles—one that will actually do the work. This new contrivance has been brought out so recently that they haven't had time to have cuts made and a description written, but they will undoubtedly be in readiness to answer the questions of all interested parties by the time this announcement gets well distributed to the trade. If you are interested, write them. They will send a sample free of charge.



The Clinton Pharmaceutical Company, of Syracuse, N. Y., are introducing a new appliance which is meeting with considerable success in the hands of the medical profession. It consists of the Standard Powder Blower, which is especially adapted for Intra-Uterine and Intra-Urethral powder medication. Call the attention of your physicians to the above illustration.

A consideration of the question of where to obtain a pharmaceutical education should embrace a careful study of the advantages offered by the Philadelphia College of Pharmacy. This school was organized in 1821 and its alumni include many of the most prominent men in American pharmacy. Write for announcements to Thomas S. Wiesand, 145 North Tenth street, Philadelphia.

John Phillips & Co.'s advertisement in this issue gives a very good idea of what their "Silent Salesman" is like. He shows the goods (goods well shown are half sold) while you take in the money. Everything manufactured by this firm in the way of store fixtures, fountain tops, etc., has some distinctive feature to recommend it, and every druggist who is figuring on improvements should get an estimate from John Phillips & Co., Detroit, Mich.

PLAYING CARDS.

You can obtain a pack of best quality playing cards by sending fifteen cents in postage to P. S. Eastis, Gen'l Pass. Agt., C., B. & Q. R. R., Chicago, Ill.

NEW HYDROMETERS.

Whitall, Tatum & Co. have recently gotten out a new line of hydrometers for commercial and laboratory use. They are made with all the care that W. T. & Co. are known to give to their graduated work, and are all ballasted with mercury, and the scales so accurately adjusted that the instruments compare favorably with others usually sold at much higher prices.

Their present list includes a variety of instruments with Baumé scales for both light and heavy liquids, four alcoholometers, two with and two without thermometer, and a series for special uses based in most cases on the Baumé scales.

As is well known, Baumé's hydrometers are more largely used than any other, in spite of the fact that the scales are entirely arbitrary, and often confusing because of the same figures being used above 10 degrees for both light and heavy liquids.

Several authorities have recommended the use of hydrometers with arbitrary scales, such as Baumé's, Balling's, Long's, etc., in favor of the more rational and simpler specific gravity scale, but users have become so accustomed to one or another of the old forms that it will doubtless be extremely difficult to bring about a reform.

For the convenience of those using their hydrometers, however, W. T. & Co. supply with each instrument a table showing the equivalents of Baumé and specific gravity degrees. They also announce that they are looking



towards getting out a line of hydrometers with both Baumé and specific gravity scales on one instrument, after the plan of their popular duplex graduates, such a series of hydrometers would no doubt prove acceptable and convenient, and would enable users of hydrometers to become acquainted with the specific gravity scale, as the duplex graduate has familiarized many with metric fluid measures.

The Welch Grape Juice Co., of Vine-land, N. J., are, of course, reasonably anxious to have the drug trade handle their unfermented grape juice; but they ask no one to buy it before testing it, and to have this done they will send every druggist who will write to them a sample two-ounce bottle free of charge. They will also, probably, send with the bottle some information about the use of their grape juice in soda water dispensing.

If you have been waiting for an opportunity to discard your old scales and purchase new ones at a decided bargain, read the advertisement of Robt. Stevenson & Co., of Chicago. In this issue they offer a Dearborn Box Prescription Scale with coin, grain and dram weights and one pair extra adjusted glass scale pans, and the Dearborn Counter Scale with set brass block weights, $\frac{1}{4}$ ounce to 1 pound, all boxed in shipping order, for \$20. This may be the opportunity you have been looking for.

Bell-Cap-Sic Plasters and Kremlin Cream are two winners, because they are made right, sold right and advertised right. The oleographs of "The Pupples" never fail to call attention to the plasters, and the result is a steady demand for them ever afterwards. Kremlin Cream is advertised in all the magazines, has been well sampled, and the public is beginning to call for it. Druggists who desire sample of this dentrifice will receive one free upon application to J. M. Grosvenor & Co., 105 Milk street, Boston.

The California Fig Syrup Co. claim that the point which the enterprising druggist should consider is the volume of profits, and they believe in making the percentage large enough to insure favorable results to the retailer. The advertising on their product is to be largely increased during 1894, which is equivalent to money in the druggist's pocket, and they ask the co-operation of the trade in extending the sale of their preparation, which will result in benefit to both the manufacturers and the dealers.

The physicians of this country as a rule, are already quite well posted on the merits of Panopteon, the bread and beef peptone, manufactured by Fairchild Bros. & Foster, New York. They naturally look to the drug trade to supply their demands. Do you keep it in stock? Panopteon is made of the entire edible substance of prime lean beef and best wheat flour, thoroughly cooked, sterilised and concentrated, and is an excellent food in all cases where a quickly assimilable and comprehensive nutriment is required.

The economy of manufacturing in large quantities finds a striking illustration in the popular Tanglefoot. When the price was reduced last year to \$3 75 per case, it was thought that the lowest possible limit had been reached, that the cost of production had been reduced to a minimum. A few years ago the crude material entering into a case of Tanglefoot would have cost as much. Yet the immense output of last year which exceeded anything ever done before, accomplished another saving, which as usual goes to the retailer to help to still further increase the demand. The prices this year will be: 40 cents per box, \$3 60 per case (ten boxes), \$3 50 per case in five-case lots, \$3 40 per case in ten-case lots.

CROWN LAVENDER SALTS.

In the great hospitals of the world's cities, where are gathered daily the suffering and the stricken, and where the tragedy of life and death always enacting never ceases, the human heart can perhaps be best seen in its full plain nakedness and its true simplicity. There is the realm of trifles, where the little things of life ordinarily unnoticed, assume an exaggerated importance, and the great events of the world outside meet with but languid interest. The entrance of a butterfly into the long cot-lined ward, bearing its message of outside life, sunlight and nature, will bring more happy smiles on pale wan lips than any message that might flash a nation to rejoicing.

Nurses know this, and the quiet, softly-voiced women who glide so noiselessly around the halls of pain have many a tale of joy and sorrow, mirth and pathos that has come from some mere trifle. Doctors, too, have seen the magic of the trifle and know its potency for good or ill. One of these, an Englishman, on the staff of a great London hospital who, recently discussing this subject, cited an example that may point the case. "About three years ago," said he, "a poor fellow was brought in who had been run over by a heavy truck. He was horribly mangled and amputation of both legs was absolutely necessary to save his life. This, of course, meant that he was hopelessly crippled for life even if he recovered, which, as he was suffering greatly from the shock was doubtful. He submitted to it, however, with the fortitude of the highest courage, and slowly day by day began to improve. In some manner, as the days of his convalescence stretched along, he became possessed of about a half bottle of Lavender Salts. The invigorating perfume seemed to enchant him and for days he was like a child with a sweetmeat, holding it for hours and occasionally taking little saving sniffs. Despite all his care, however, the virtuously departed, and his sorrow was such that I really began to have serious fears of its effects on him. He was a poor man and could not buy more, but one day he got the nurse to give him paper and pen, and wrote to the Crown Perfumery Company in Bond Street, telling how he had enjoyed the Lavender Salts and that he was too poor to buy more. It was as pathetic a testimonial, I think, as any firm ever got, and its answer the next day was a generous one, the firm sending him one of their largest jars. Eventually he recovered, but had it not been for the happiness brought by so small a thing as a bottle of Lavender Salts I feel sure that medicine and care would alike have failed to keep him alive."

Nothing does so much to discourage the free use of paint by the public as the sale of inferior goods. People cannot afford to paint buildings every two or three years with poor paint, so they let them go with a shabby appearance. Thus the dealer sells no more of such paint than he does of a good article. In buying white lead the dealer should make it a point to buy of a firm which cannot afford to put an inferior article on the market, and the Eagle White Lead Co., of Cincinnati, Ohio, claim to be just that kind of a firm. See list of agencies in their advertisement in this issue, and remember the Eagle brand when ordering.



T. D. WEST.

T. D. West, of Atlanta, Ga., is a gentleman well known to the druggists of Georgia and the drug trade of the south as a popular and successful traveling salesman. He has until recently been connected with the Lamar & Rankin Drug Company, of Atlanta. Mr. West was for many years a prominent druggist of Florida, and was one of the charter members of the Florida Pharmaceutical Association. He emigrated from Florida and located in Dallas, Tex., engaging in the proprietary medicine business. This venture proving somewhat unprofitable, Mr. West removed to Birmingham, Ala., and again engaged in the retail drug business, where he remained until, attracted by the thrift and enterprise of Atlanta, he concluded to cast his fortune there. Mr. West is a gentleman of intelligence and refinement, of high personal character, and enjoys the confidence and esteem of a large circle of friends.

BARONMORE, 2:17 $\frac{1}{2}$

Mr. D. C. Palmeter, of Chicago, owner of "Baronmore, 2:17 $\frac{1}{2}$," the fastest three-year-old in Wisconsin, writes as follows: "I have given Quinn's Ointment a thorough trial and it has proven a great success. Does even more than claimed." For curbs, splints, spavins, windpuffs and bunches use this wonderful remedy. Quinn's Ointment is endorsed by the leading breeders from Maine to California. It will pay all druggists to carry it in stock, and if you desire advertising or will send the names of ten or twelve of your customers, who are in the horse breeding line, to Messrs. W. B. Eddy & Co., Whitehall, N. Y., they will forward them, without charge, trial packages.

THE PLACE TO DINE IN NEW YORK CITY.

Business men visiting New York City are beginning to find out that one of the cosiest places to get a good dinner, with everything of the best, is the old restaurant, formerly Heckman's, now called the "Century," at No. 122 William street, in the center of the drug district, which has changed hands and is now run in first-class style by one of the best caterers in the city. There has been a restaurant in this building (the oldest in the city) as far back as the memory of the oldest inhabitant can run. Many of the leading business men, who are particular regarding their meals, may be seen regularly at this old hostelry.

There is quite a popular demand for proprietary homeopathic remedies, and many druggists have been successful in building up a good trade in such preparations. The Munyon Homeopathic Home Remedy Co., of 1505 Arch street, Philadelphia, make an offer in their advertisement in this issue, which is worthy the attention of those who wish to handle such medicines. An elegant cabinet containing a \$42 assorted stock of Munyon's Remedies is furnished at a discount of 40 per cent and liberal time is allowed for payment. A handsome clock goes with the case, and 500 "Guides to Health" with retailer's imprint are furnished with every order.

The Iron and Manufacturing Co., 22 Cliff street, New York, have good grounds for calling attention to the valuable points in their steel soda fountains from the fact that the great demand for them since their introduction has put the company in a position where they can properly claim to be the largest manufacturers of steel fountains in the world. Safety and durability are the two features which have won for them this position, and they have been secured by unique methods of construction, which makes the soda water manufacturer feel at ease while using their apparatus. Write for prices, terms and full description if you are in the soda water business.

The application of electricity to heating has long been regarded as feasible, but the practical part of the operation has been mostly confined to the columns of magazines and scientific journals. Queen & Co., of Philadelphia, have, however, solved the problem, and are now in a position to supply what they call the "Electric Hot Plate." It can be used on any electric light wire which may be in the house, and by its use water may be quickly boiled. It is particularly convenient in laboratory work in boiling and distilling inflammable liquids and vapors. It also makes a valuable household utensil. Write for prices and detailed information, and mention the Era.

The benefit to dealers in sending for printed matter is evidenced in the following letters:

Orrville, Ohio, December 15th, 1893.
Yellow Pine Extract Co.:
Gentlemen—Enclosed please find money order for price of one bottle Yellow Pine Compound for rheumatism. Send same to H. G. Moore, Marshallville, O. We hope to be able to send an order for more. Yours truly,

NAFTZGER & CO.
Again under date of December 15th, 1893, they write: "It seems as though your circulars, etc., are going to bring the answers. The party for whom we got the medicine is helped, and this is a good advertisement. Send us ¼ dozen at once, also the order of this morning as directed." And on December 18th, 1893, they write: "Please find enclosed money order for bill December 16th, also list of sufferers. Please send letters signed. Naftzger & Co."

To any dealer who will send for same, we will mail printed matter and blanks for names of sufferers from rheumatism, whose trade we will work up for dealers. Yellow Pine Compound finds a ready sale at \$2. \$18 per dozen, 6 per cent off for cash with order. Sold by Yellow Pine Extract Co., Allegheny, Pa.

The 1894 catalogue which the Low Art Tile Company, 552 Broadway, Chelsea, Mass., is distributing, is an elegant publication, from the press of the Heliotype Printing Company, of Boston, and while representing but a limited number of the styles and sizes made by the Low Company, those which are shown are the average sizes that are principally used, and the catalogue will therefore be of service to the average dealer in making a selection of apparatus. The illustrations are printed in colors which give a good idea of the artistic effects which can be obtained by using tiles for soda fountain construction. If you contemplate any change in your soda water business you should have this catalogue.

There are five points to be considered in connection with the product of the Silurian Mineral Spring, of Waukesha, Wis. First is the undoubted purity of the water; second, the medicinal qualities which make it an ideal alterative, diuretic and laxative; third, the combination of the water with wild cherry and acid phosphates, under the name of Silurian Wild Cherry Phosphate, for use as a beverage; fourth, the Silurian Wild Cherry Phosphate Syrup for serving at the soda fountain; fifth, the prices at which these goods are sold so that the retailer is enabled to realize a good profit. Write for sample of the syrup for soda fountain use and the new 64-page catalogue of the company.

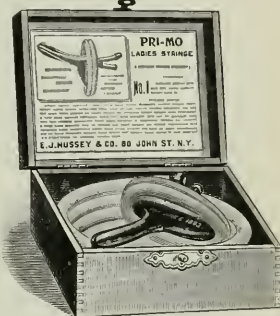
The season is fast approaching when the public will be asking for tonics, and it is with this knowledge in mind that F. Stearns & Co., of Detroit, Mich., call the attention of the trade to several articles in this line, each possessing characteristic remedial properties of its own. Stearns' Wine of Cod Liver Oil, combining the active medicinal constituents of the oil with peptonate of iron and wine, is the ideal recuperative tonic. Stearns' "Hæmoferrium," the true blood iron, asymptotically prepared from fresh bullock's blood, forms an excellent chalybeate tonic. Cascara Aromatic (Stearns') is a tonic laxative of acknowledged value, and Kola Cordial is offered as an unexcelled nerve tonic. With an assortment of these goods upon his shelves the retail druggist will be able to meet any demand that may arise for a tonic.

Druggists will find many special offers to introduce goods, but it is rare that so liberal an offer is made as that of McClellan & Patton in this issue of the Era (also January 15 number, page 53) to introduce Dr. Patton's Headache Specific. The firm have many proofs of the satisfaction which this preparation is giving, and dealers who handle it find a steadily increasing sale. The inducement which they offer in connection with these goods is to send a rolled gold watch, free, with an order for two gross, and either a solid silver watch or the "Era Formulary" with an order for one gross. The benefit of this offer can only be obtained by accepting it at once, as the supply of watches is limited. The firm can secure any number of reasonably good watches to extend this offer indefinitely, but the particular watch they are offering came to them as an unusual bargain, and cannot be duplicated for double the money. Dr. Patton's Headache Specific pays 100 per cent clear profit, and the watches or Formulary are simply offered

as an incentive to push their goods. The offer is worthy of serious consideration.

Joseph Fleming & Son, wholesale druggists, 412 Market street, Pittsburg, Pa., call attention to two brands of pure whiskey, both of which possess medicinal qualities which should engage the attention of the drug trade. Fleming's Old Export Whiskey is manufactured by one of the largest distilleries in Western Pennsylvania and exported to Hamburg, Germany, after remaining in U. S. bonded warehouse for three years, and shipped back to this country after being thoroughly matured. Fleming's Pure Malt is offered as an article which will attract the attention of physicians on account of its maturity and purity. With each order for one dozen of either of these brands, a dozen miniature samples are furnished for free distribution. These samples never fail to bring customers, and the dozen samples may be counted on to sell a dozen bottles.

A NEW VAGINAL SYRINGE.



The "Pri-mo" Ladies' Syringe lately put upon the market by E. J. Hussey & Co., 80 John street, New York City, is a strictly high grade instrument and is put up in a very attractive way. Its merit lies in the peculiar construction of the nozzle and shield. The nozzle being anatomically correct in its design, and of superior finish, is both comfortable and efficient, and is in no sense a wedge. The shield is an improvement upon all others heretofore presented, and is provided with a soft rubber cushion which makes it fit snugly about the parts, and forms a perfect occlusion. It is stated that water 20 degrees hotter may be used with this syringe than with any other. The "Pri-mo" Nozzle and Shield may be used with any fountain or bulb syringe.

They are furnished in two outfits, viz.: No. 1, which is shown in the engraving, contains nozzle and shield, packed with 4 feet (1-4 inch) outlet tubing, and No. 2 containing nozzle and shield, packed with a two-quart fountain bag, tubing, infant and rectal pipes, complete.

Each outfit is packed in a polished cherry wood box, which is lined with enameled waterproof paper. Send for an illustrated pamphlet telling all about the "Pri-mo" Ladies' Syringe.

John Phillips & Co. have been awarded the contract for fitting up the new wholesale drug establishment of Farrand, Williams & Clark, Detroit. This includes all inside fixtures, such as wall cases, shelving, counters, show-cases, etc.

MAGAZINES.

The following is a brief mention of the important features of the March magazines.

The North American Review is well in line with articles upon the leading topics of the day. Secretary of the Navy Herbert writes of the "House of Representatives and the House of Commons" in a way which leads to the belief in the superiority of the former in legislative matters. Sarah Grand, authoress of "The Heavenly Twins," writes of a "New Aspect of the Woman Question." Hon. E. T. Chamberlain in "A Present Chance for American Shipping," calls attention to our antiquated navigation laws, which discourage American enterprise. Archibald Forbes writes upon "The Outlook for War in Europe." Gov. Greenhalge, of Massachusetts, writes of "A Conference of New England Governors." Major Arthur Griffiths writes of "Prisons in the Old World and New" and Bram Stoker furnishes an article on "Dramatic Criticism." Prof. Richard T. Ely has written an able article upon "Natural Monopolies and the Workingman," which is quite in accord with some of the thinking which is being done at present upon the question of government ownership of some great industries. "River and Harbor Improvement" forms the subject of an article by Chairman Blanchard, of the committee on rivers and harbors, and Major Sir George Sydenham Clarke crosses swords with Andrew Carnegie on the question of "A Naval Union with Great Britain."

The Ladies' Home Journal presents a view of Nathaniel Hawthorne, as seen by his youngest daughter, in an article entitled "My Father's Literary Methods." Rev. Lyman Abbott handles the church choir in a masterly manner; Stockton carries "Pomona" still further abroad in her travels, and Howells is as entertaining as ever in his "Literary Passions." "The Art of Dressing a Bride," "Early Spring Bonnets," "Early Spring Gowns," "Colors and Materials for Spring," "The First Spring Sewing," "The Etiquette of Flowers," present an array of topics which cannot help but please the feminine mind. Eben E. Rexford tells about "Making and Caring for a Lawn," Miss Scovill gives counsel on "What to do in Emergencies," and the poetry of the number is contributed by Eugene Field, Harry Romaine and Charles B. Going.

St. Nicholas presents an array which will receive attention from its readers in its minutest detail. "Owney of the Mail Bags" describes a small dog who has traveled all over the United States in mail cars. Under the head of "Historic Dwarfs," Joseph Boruwiaski's history is presented by Mary S. Roberts; "A Man-of-War's Menagerie," by Don C. Seltz, describes the sailors' pets aboard the U. S. steamship San Francisco; Gustave Kobbe tells of "A Boy Whaler;" Philip Atkinson gives "A Lesson in Electricity" and Lida M. Tulloch gives "The History of a Dagger." W. T. Hornaday writes of "The Cat Family in Our Country;" John M. Steele describes a "Kansas Cyclone;" Dr. Eastman continues his "Stories of a Wild Life" and Mark Twain has some further adventures of "Tom Sawyer Abroad" to relate. The "Brownies" are presented in a play by Palmer Cox, and the first act, which appears in this number, promises much entertainment to the friends of these quaint little creatures.

The Atlantic contains the concluding chapters of "His Vanished Star," by Chas. Egbert Craddock, which will shortly appear in book form. "Two Strings to His Bow," by Walter Mitchell, is also concluded in this number. "The Fore-loam Rug," a New England tale, by Kate Douglas Wiggin, and the third installment of Mrs. Deland's "Philip and His Wife" are the other fiction features of the number. Bradford Torrey writes "On the Upper St. John;" Edith Brown on the question "Is the Musical Idea Masculine?" Archibald Lampman, "The City of the End of Things;" Jeremiah W. Jenks, "A Greek Prime Minister, Charilaos Tricoupolo;" Maurice Thompson, "The Sapphic Secret" and Nicholas Murray Butler on "The Reform of Secondary Education in the United States."

Lippincott's has for the complete novel, "A Desert Claim," by Mary E. Stickney. Other articles of interest are "A Prophet of the New Womanhood," by Anne Nathan Meyer; "The Inmate of the Dungeon," by W. C. Morrow; "The Training of the Saddle Horse," by John Gilmer Speed; "More About Captain Keed," by Emma H. Ferguson; "Bees and Buckwheat," by Charles C. Abbott; "The Late Mr. Watkins of Georgia," by Joel Chandler Harris; "The Evolution of Public Roads," by Charles McIvaline; Installments of "The Trespasser," by Gilbert Parker, and "Talks with the Trade—Literary Mendicancy."

Popular Science Monthly has for its initial article an argument to "Abolish All Prohibitive Liquor Laws," by Apollon Morgan. He denounces all such laws as ineffectual and actually standing in the way of better remedies for intemperance. Frederic Houssay writes of "Industry of Animals;" Prof. J. Mark Baldwin gives the result of some experiments to determine the "Origin of Right-Handedness," and John G. Rothermel writes of "Fossil Man." Other articles of importance are "Professor Tyndall," by Prof. T. H. Huxley; "The European Law of Torture" by A. W. Barber; "Customs and Superstitions of the Mayas," by Mrs. A. D. Le Plongeon; "Biology and Ethics," by Sir James C. Browne, M. D.; "The Action of Massage Upon the Muscles," by D. Graham, M. D.; "The Ice Age and Its Work," by A. K. Wallace; "The Founder of the First Scientific Journal," and "Sketch of Jean Martin Charcot."

The Century has for its opening article a sketch of the "Tulleries under the Second Empire," which is accompanied by portraits of Napoleon III., Eugenie and the Prince Imperial, that of Eugenie appearing as a frontispiece. The table of contents includes "The Great Sympathetic Strike," by Charles B. Davis; "Old Dutch Masters—Gerard Dou," by Timothy Cole; "The Fortunate One," by Harriet Monto; "A Pilgrimage to Lourdes," by Stephen Bonsal; "The Timber Cruiser," by Julius Chambers; "Drowsy Kent," by Charles De Kay; "Mayor Andre's Story of the Mischianza," an unpublished manuscript by Major Andre, with preface by Sophie Howard Ward; "Isam and the Major," by Harry S. Edwards; "We Camped with Burns," by Wm. P. Foster; "Edward Grieg," by Wm. Mason; "The City Tramp," by Josiah Flynt; "The Imagination," by James Russell Lowell; "Coeur d'Alene," by Mary Hallock Foote; "The Madison Square Garden," by Mrs. Schuyler Van Rensselaer; "Philip Kearny," a personal tribute, by Philippe, Comte de

Paris; "Earthquakes, How to Measure Them," by Edward S. Holden; "The Courting of Jufrow van Loo," by Anna Eichberg King; "The Suppression of Bribery in England," by Jeremiah W. Jenks; "The Anti-Catholic Crusade," by Rev. Washington Gladden, and "Pudd'nhead Wilson," by Mark Twain.

Outing is as usual a finely illustrated number and the table of contents discloses the following: "The Pakiglaccio's Courtship," a story of Italian peasant life by Jean Porter Itudd; "Modern Cannon-Building for Amateurs," by Henry L. Strohbridge; "The Rise of the Bottom Itall," a story of the south, by John A. Williams, Jr.; "A Leopard Hunt in Ceylon," by E. Fitzroy Dixon; "Duck Shooting in a City," by Herman Rave; "Hooting at Yale and Harvard," by J. Ralph Finlay; "In Aztec Land Aweh," by T. Philip Terry; "The Boston Terrier," by Chas. F. Leland; "Climbing in the Alps," by Charles E. Thomson; "The First Corps Cadets, M. V. M.," by Arthur L. Spring; "The History of Cross-Country Running in America," by E. H. Baynes; and "Graining the Tarpon," by Willis B. Hobbs.

Hartmann & Hauers, of Hanover, Germany, announce that they have transferred their entire output of Beechwood Creosote in the United States to Merck & Co., of New York, and that the same will hereafter be furnished to the trade under the label and seal of the latter firm. It is claimed that many spurious articles have crept into use bearing imitations of the "H. & H." brand under the previous arrangements, and the change in methods of bringing it to the trade will do much to insure to the medical and pharmaceutical professions a reliable source of supply. When ordering specify Beechwood Creosote-Merck.

We are the recipients of a decided novelty in the shape of an aluminum comb sent us by the American agents, Wm. L. Strauss & Co., 27 Warren street, New York City. They claim, and we must say that the appearance of the comb bears them out, that they compare favorably in price with the best quality of horn or rubber combs. In fact, many grades of hard rubber combs are sold at a much higher price. The manufacturers warrant these combs never to break or tarnish, which fact should be appreciated by the trade. They are made in all shapes, ladies' dressing, barbers', etc., and in all sizes.

On March 7th, A. Kiefer & Co., of Indianapolis, became the A. Kiefer Drug Co. Mr. A. Schmidt, who has been associated for a number of years with Mr. Kiefer, has withdrawn. The articles of incorporation filed by the new company show a capital stock of \$250,000, all paid in. The directors are A. Kiefer, Chas. Mayer and Chas. McBride. We are informed that Mr. Schmidt is a candidate for County Treasurer.

No matter if you think you have reached bed rock in the matter of buying folding boxes, Jesse Jones & Co., 635-6th Commerce st., Philadelphia, claim it will pay you to look up the "J. J. Box." They will be pleased to send you samples and quotations. They like competition, as it has brought up their boxes to the present high standard, and they will quote prices with the full knowledge that they are to be compared with those of their competitors.

BOOK REVIEWS.

***LECTURES ON AUTO-INTOXICATION IN DISEASE, OR SELF-POISONING OF THE INDIVIDUAL.**—This is a translation of a work by Bouchard, and deals with subjects of every-day interest to the physician. These lectures may be regarded as an inquiry into the operation of poisons introduced from without or generated within the body of man and the part they play in health and disease. From the fact that death frequently carries off in a few hours or days individuals who are in the prime of life and in apparent good health, and at whose post-mortem no change in structure can be found to explain the fatality, the attention of the medical profession has lately been strongly directed toward an investigation of putrefactive processes in the intestinal canal, and the development of physiological and pathological alkaloids within the body. This work will therefore be a valuable addition to the library of those who are disposed to investigate this important subject.

ANNUAL REPORT OF THE BOARD OF REGENTS OF THE SMITHSONIAN INSTITUTION.—Published by the government, Washington, D. C. This report shows the operations, expenditures and condition of the institution to July, 1891. Aside from the statistical information the work contains many valuable papers, among which are "Some Possibilities of Economic Botany," by George L. Goodale; "Navajo Dye Stuffs," by Washington Matthews; "The Evolution of Commerce," by Gardner Hubbard; "The Relation of Natural Science to Art," by E. du Bois-Reymond; "The Flow of Solids," by William Hallock; "The General Circulation of the Atmosphere," by Werner von Siemens, and many others of scientific interest.

***A COMPEND OF PHARMACY.**—A fourth revised edition of this popular quiz compend is now offered, which embraces the essential features of the new pharmacopoeia and retains those of the third edition, which included comparative tables of weights and measures, furnished by the United States coast and geodetic survey. Special attention is given to familiarizing the student with the metric system, and the work will be found a valuable one for those who desire a book of this character.

PROCEEDINGS OF THE TWELFTH ANNUAL MEETING OF THE VIRGINIA PHARMACEUTICAL ASSOCIATION, held at Blue Ridge Springs, Va., September 13 and 14, 1893. Aside from routine matters and statistics showing the prosperity of the association, the report contains a very valuable paper entitled "A Few Facts and Points about Quinine gathered here and there and strung together by Robert Brydon."

***Lectures on Auto-intoxication in Disease, or Self-Poisoning of the Individual.**—By Ch. Bouchard, Professor of Pathology and Therapeutics, member Academy of Medicine, Paris. Translated by Thomas Oliver, Professor of Physiology, University of Durham, physician to Royal Infirmary, Newcastle-on-Tyne, England. Cloth, 302 pages, \$1.75 net. Philadelphia, The F. A. Davis Co., 1914-1916 Cherry st.

***A Compend of Pharmacy.**—Fourth revised edition, based upon Remington's "Text-Book of Pharmacy," and the U. S. P., 1890. By F. E. Stewart, M. D., Ph. G., Jefferson Medical College, Philadelphia. Cloth, 181 pages, 81. Philadelphia, P. Blakiston, Son & Co.

PROCEEDINGS, 1893, OF THE MASSACHUSETTS STATE PHARMACEUTICAL ASSOCIATION, held at Atlantic House, Nantasket Beach, June 29, 21 and 22, 1893. This report is quite a creditable one, showing that the pharmacists of Massachusetts take a lively interest in matters pertaining to their welfare. Among the papers presented is one on "Quinine Tannate," by Fred T. Drake, Ph. G., Stoneham, Mass., and considerable space has been devoted to extracts from the state law bearing upon pharmacy and decisions of the Supreme Court relating to druggists and apothecaries.

LONGEVITY.—Some of the means of attaining this desirable condition are ably discussed by Archer Atkinson, M. D., 210 Maryland ave., Baltimore. He gives a list of over 250 persons who have lived over one hundred years, and his treatment of the subject will be of interest to all students of natural history, physiology and biology. Reprinted from Virginia Medical Monthly, February, 1894. For sale by the author. Price, 25 cents per copy.

THE IMPORTANCE OF EMPLOYING ANAESTHESIA IN THE DIAGNOSIS OF INTRA-PELVIC GYNAECOLOGICAL CONDITIONS.—Demonstrated by an analysis of 240 cases, by Hunter Robb, M. D., Associate in Gynaecology Johns Hopkins University, Baltimore, Md.

A NEW SPIGOT ATTACHMENT TO FACILITATE ASEPSIS.—By Hunter Robb, M. D., of Baltimore. Reprinted from the Annals of Surgery, February, 1894.

MAINTENANCE OF AN ASEPTIC TECHNIQUE IN GYNECOLOGICAL OPERATIONS OUTSIDE OF HOSPITALS.—By Hunter Robb, M. D., Baltimore.

IMPORTANCE TO THE SURGEON OF A BACTERIOLOGICAL TRAINING.—By Hunter Robb, M. D., Baltimore.

PATENTS, TRADE-MARKS AND DESIGNS.

From U. S. Patent Office Gazette.

PATENTS.

- 514,900—Abdominal Bandage.—Mary Heath, New York, N. Y.
- 514,931—Brown Azo Dye.—Meinhard Hoffmann and Carl Krohn, Feenheim, near Frankfort-on-the-Main, assignors to Leopold Cassella & Co., Frankfort-on-the-Main, Germany.
- 514,952—Apparatus for Spraying Oil or Other Liquids.—Leonard L. Merrifield, Franklin, Mass., assignor to the Economical Gas Apparatus Construction Company, Limited, Toronto, Canada.
- 514,974—Nursing Bottle.—Richard Turck, Ludenscheid, Germany.
- 514,983—Process of Concentrating Sulfuric Acid.—Wilhelm Wolters, Borowitsch, Russia.
- 515,033—Process of Making Citric Acid.—Carl Wehmer, Hanover, Germany.
- 515,038—Method of and Apparatus for Saving fumes of Lead Sulfid.—Eayre O. Bartlett, Joplin, Mo., assignor to the Western Patent Company, Denver, Colo.
- 515,040—Apparatus for the Manufacture of Pigment from Metallic Fumes.—Eayre O. Bartlett, Joplin, Mo.
- 515,041—Method of and Apparatus for Making White Lead Pigment from Lead Fumes.—Eayre O. Bartlett, Joplin, Mo.
- 515,042—Method of Making Sublimed-Lead

- Pigments from Lead Fumes.—Eayre O. Bartlett, Joplin, Mo.
- 515,043—Method of Manufacturing Oxid of Zinc.—Eayre O. Bartlett, Joplin, Mo.
- 515,056—Soda Fountain.—Thomas C. Riley, Boston, Mass.
- 515,057—Soda Fountain.—Thomas C. Riley, Boston, Mass.
- 515,062—Can-Filling Machine.—Henry R. Stetkey, Portland, Maine.
- 515,069—Bottle Cover or Cap.—Antenor Asorati, New York, N. Y.
- 515,077—Product for Oiling Wool.—Ernest Godchaux, La Roche-sur-Chiers, France.
- 515,100—Basic-Yellow Dye.—Arthur Weinberg, Frankfort-on-the-Main, Germany, assignor to Leopold Cassella & Co., same place.
- 515,210—Disinfecting Apparatus.—Benjamin C. Graves, Mount Vernon, N. Y.
- 515,240—Apparatus for Extracting Oil or Fat.—John A. Lighthall, Jr., Syracuse, N. Y.
- 515,283—Can-Filling Machine.—Charles S. Bucklin, Baltimore, Md.
- 515,288—Syringe.—Charles D. Harsin, Stockton, Cal.

PATENTS EXPIRED.

February 29, 1894:

- 157,468—Apparatus for Extracting Tannin.—Thos. W. Johnson, New York, assignor to H. C. Johnson, Astoria, N. Y.
- 157,629—Cigar Lighters.—Julien T. Hill, Brooklyn, assignor to Wm. H. Bailey, New York, N. Y.
- 157,641—Cigar Cutters.—Ernst Kast, Waterbury, Conn., assignor of two-thirds his right to Louis Wenzel and Emil Miller, same place.

TRADE MARKS.

- 24,246—Cigars.—Weeks & Potter Company, Boston, Mass. The words "La Siren."
- 24,249—Chewing Gum.—Faultless Chemical Company, Baltimore, Md. The words "Faultless Chips."
- 24,250—Licorice Lozenges.—Young & Smylle, Brooklyn, N. Y. The representation of three cubical figures bearing the letters "A B C" superimposed upon six similar ones bearing the letters "Blocks." The cubes or blocks are shown as surrounded or placed within a fancy scroll pattern or background and the words "Young & Smylle's Pure Licorice Lozenges" appear in this scroll or background.
- 24,255—Certain Named Toilet Preparations.—R. H. Macy & Co., New York, N. Y. The representation of a five-pointed red star.
- 24,256—Certain Named Remedies.—R. H. Macy & Co., New York, N. Y. The representation of a five-pointed red star.
- 24,257—Remedy for Headache.—The Oak Chemical Company, Philadelphia, Pa. The words "New Heads for Old."
- 24,258—Medical Preparation for Liver Diseases.—J. H. Zeilin & Company, incorporated, Philadelphia, Pa. The words "Liver Regulator."
- 24,259—Remedy for Rheumatism, Gout and Lumbago.—William H. Corbit, New York, N. Y. The word "Hill's."
- 24,262—Perfumery.—Charles Gordon Buck, Chicago, Ill. The word "Jacrose."
- 24,270—Remedy for Lung and Nervous Diseases.—Billings, Clapp & Co., Boston, Mass. The word "Phosphorole."
- 24,271—Remedy for Gonorrhoea.—Scureman Drug Company, Nanticoke, Pa. The representation of a leather pouch.
- 24,275—Preparation of Quinine.—Billings, Clapp & Co., Boston, Mass. The word "Incho-Quinine."

THE MARKETS.

The fluctuations noted in this market report are those affecting goods in original packages and jobbing lots. A complete price list, showing quotations as made by jobbers to retailers, will be found upon another page under the head of "Prices Current."

Advanced.—Caffeine, Cocaine, American Saffron, Ipecac, Balsam Peru, Sal Ammoniac, Vanilla Beans, Cod Liver Oil, Coriander Seed, Senna Tinnevely.

Declined.—Wood Alcohol, Guarana, Oil Bergamot, Balsam Fir, Canada, Sugar of Milk, Nitrate of Silver, Gamboge, Piperazine.

New York, March 8, 1894.

The characteristic features of this market during the past two weeks have been continued jobbing activity in a large variety of articles, an almost entire absence of the speculative element, and a generally steady undertone, with dealers apparently satisfied with the financial condition of affairs. The principal demand has seemed to come from interior distributing points where stocks have not been replenished beyond existing requirements, and as the usually busy spring season is close at hand, it is more than probable that the hand-to-mouth policy of buyers will continue to give the general market an active appearance for an indefinite period. At all events there is little cause for complaint regarding the aggregate volume of business in progress and there is nothing of a discouraging character in the future outlook. The number of fluctuations in values have been rather above the average, but only in a few instances are radical changes to be noted.

OPIMUM.—Has ruled fairly strong up to within the past day or two, when an easier tendency developed with all holders quoting a uniform price. There is, however, some hesitancy to name prices for large parcels, and by some in the trade the present easiness is considered to be only temporary, and, more or less, a part of the programme formulated by the larger operators. The arrivals have been quite heavy and further large shipments are on the way which is the result of efforts to increase holdings before the proposed duty becomes operative. No business of consequence has transpired and even in a jobbing way the demand has been slow.

POWDERED OPIMUM.—Is fairly steady, with limited trading.

QUININE.—Has continued strong, with increased activity and liberal sales are reported for consumption, with both large and small dealers buying freely. The demand for prompt deliveries has been met mainly by second hands, but the agents of foreign manufacturers claim to have booked a considerable number of orders for futures. Cable advices all indicate continued firmness abroad and the general outlook is favorable for improved prices in the near future.

ALCOHOL.—Grain is unchanged and fairly steady with a good consuming demand, while wood has experienced a further drop of 10 cents per gallon as the result of continued keen competition between manufacturers.

CAFFEINE.—Has been advanced.

COCAINE.—Manufacturers have advanced prices.

AMERICAN SAFFRON.—Continues to

harden under a good demand from the consuming trade and a consequent material reduction of available stocks. Offerings are somewhat limited, as a further advance is being considered by the principal holders.

BUTTE LEAVES, SHORT.—Have developed an easier tendency and pressure to sell has resulted in a decline of about $\frac{1}{2}$ cent per pound on all varieties.

HEPACUANHA.—Is decidedly stronger abroad and a firmer tone prevails here with quotations showing a slightly higher range, but there is only a light inquiry and a more urgent demand is necessary to place values on a parity with those ruling in foreign markets.

CELERY SEED.—Is somewhat unsettled and weak. Prime quality has been offered in large lots at fully 1 cent per pound below current quotations without finding buyers. The weakness is attributed to lower cable advices from primary sources of supply.

SPERMACELE.—Is in better supply and offered more freely with values ruling lower in the absence of important demand.

ACTANILID.—Values have been established on a uniform basis.

GUARANA.—Is weak and lower with stocks offering freely at a decline of fully 5 cents per pound on both whole and powdered.

OIL BERGAMOT.—Sanderson's brand has been reduced, and other varieties are correspondingly lower.

OIL PEPPERMINT.—H. G. H. has met with rather more attention, and all available parcels have found their way into the hands of one dealer. The spot stock is consequently closely concentrated and the market has a firmer undertone.

BALSAM FIR.—Canada has been offering more freely and the price has declined, but there is no material increase in the volume of business.

BALSAM PERU.—Is stronger with a higher range of prices demanded. The upward movement is due to reduced stocks caused by liberal shipments to foreign markets where better prices are obtainable.

SAL AMMONIAC.—White grain is fully $\frac{1}{4}$ cent per pound higher, but other grades are unchanged, though firm.

SUGAR OF MILK.—Has been unsettled and weak owing to a material accumulation of stock in the hands of manufacturers, and to dispose of the large surplus liberal concessions were necessary. Values have reached the lowest level ever recorded for this article, the recent decline being fully 3@4 cents per pound. It is claimed that some of the smaller makers have been unable, or at least unwilling, to meet this radical break in price and are closing their factories. A noteworthy feature, however, is the fact that manufacturers decline to make contracts for future deliveries, and it is not improbable that curtailed production will influence a reaction in values.

SABADILLA SEED.—Liberal arrivals have added materially to the available spot supply and sellers have modified their views regarding prices.

VANILLA BEANS.—The active trade demand which has prevailed for the past several months has caused the stock of dealers to become very much depleted and as a consequence large purchases are noted from first hands at prices showing an advance on the figures realized at previous sales. The market has

a decidedly strong undertone, and the consuming inquiry continues active.

NITRATE OF SILVER.—The disturbed condition of bullion and a consequent weak market has influenced a further reduction in price.

COD LIVER OIL.—Has been decidedly active and excited with a marked improvement in values. The upward movement has been wholly in sympathy with similar conditions at primary sources of supply. Cable advices from Norway indicate that the present season's catch is about over, and that it is practically a failure, which probably means that there will be a considerable shortage. Large sales have been made here at steadily advancing prices, and one of the principal holders has since withdrawn from the market.

CORIANDEER SEED.—The bulk of the spot stock is controlled by one holder, who declines to offer or name quotations. The small supply in outside hands is very much scattered and it is difficult to fill orders.

FENNEL SEED.—New crop, German, has begun to arrive and the samples shown indicate a superior quality.

GUM KINO.—Shows increasing scarcity, and the limited stock is firmly held.

GAMBOGE.—Is offering rather more freely at a slight concession in prices.

MENTHOL.—Is exceedingly scarce and firm.

PIPERAZIN.—The agents of the manufacturers announce that hereafter packages will contain 10 grams instead of 5, and that prices have been reduced to \$1.50 for single vials, \$1.35 per vial for lots of 50, and \$1.25 for lots of 100.

ASAFOETIDA.—Is moving freely into consuming channels, and supplies are again becoming reduced.

CUTTLE FISH BONE.—Dealers report a liberal receipt of orders from consumers, but competition continues and values show no improvement.

CREAM TARTAR.—Is somewhat firmer in tone, but former prices of manufacturers are still current.

SENNA.—Tinnevely varieties are ruling strong with an upward tendency and intermediate grades are quoted higher.

MEXICAN SARSAPARILLA.—Is fractionally lower, but without stimulating the demand.

RHUBARB.—Is moving actively on orders from the consuming trade, all varieties sharing in the general distribution, and values throughout show considerable firmness.

GUM BENZOIN.—Is meeting with an improved demand and the tone of the market is firmer, some of the spot stock having been taken for foreign account.

SOAP BARK.—Continues active, but liberal supplies and sharp competition prevent any improvement in values.

W. H. Bowdlear & Co., Boston, quote crude beeswax 29 to 31 cents. Previously quoted prices will be maintained on W. H. B. refined as long as present stock lasts. W. H. B. white, 40 cents. Caruba wax weaker. Ozokerite firm at previous quotations.

The druggists of Atlanta are having a good trade on vaccine virus at present, as four or five cases of smallpox have been discovered in the city. The physicians are making house to house visits and vaccinating all persons who need it.



OSCAR OLDBERG.

PROF. OLDBERG was born in the Province of Helsingland, Sweden, January 22, 1846. He received his early education in the Gymnasium at Gefle, where he took the classical course, made rapid progress and on several occasions won distinction for scholarship in the classes. In December, 1861, he became an apothecary's apprentice in Upsala, but on the removal of his family from Upsala, was transferred to Falun, where his preceptor was Sir F. W. Helleday, who greatly befriended the young student, gave him private courses of instruction in chemistry, and accorded him quite unusual opportunities for laboratory practice. Sir Helleday, who had been a pupil of Berzelius, was one of the rare examples of unselfish devotees of science, and was

knighted by the king because of his services and attainments. Oldberg's period of apprenticeship was shortened by permission from the Royal Department of Health on the ground of special merit. In 1865 he passed the public examination prescribed for dispensers ("Provisor"), and was allowed to take the oath of office at the age of twenty. Shortly afterwards he emigrated to America, where he has devoted about eight years to pharmacy in the dispensing business, and a few years in the manufacturing of pharmaceutical and chemical preparations. For eight years he held positions in the Treasury Department, being during the greater part of that time chief clerk and Medical Purveyor of the Marine Hospital Service, resigning in 1881.

During about twenty years he has rendered service as a teacher in pharmaceutical schools, devoting all his time to this work since 1884. He has been a member of the Committee of Revision of the Pharmacopoeia of the United States since 1880, and a member of the American Pharmaceutical Association since 1873. He has written a number of pharmaceutical works, several of which have passed through two or three editions. He was elected Secretary of the Seventh International Pharmaceutical Congress, Chicago, 1893. Since 1886 he has been the Dean of the Faculty and Professor of Pharmacy of the School of Pharmacy of Northwestern University, Chicago, Ill., with which institution his name and services are most intimately associated.

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REMOVAL NOTICE.

After May 1st, 1894, the publication office of
THE PHARMACEUTICAL ERA will be at

106 Fulton Street, New York City.

With increased facilities and the additional advantage of being in close touch with the leading drug markets, we expect to introduce many new and valuable features in the Journal, which will be to the advantage of our subscribers and advertisers.

D. O. HAYNES & CO.,
Publishers.

EDITORIAL.

CONGRESS OF CHEMISTS.

On August 4th, in the city of Brussels, Belgium, is to be held an International Congress of Chemists, which will be an important one, both for the sciences and the many industries in which chemistry plays a vital part. The object of the congress is to be exclusively a discussion of problems pertaining to practical chemistry. Chemists well know that analyses undertaken by different persons very frequently lacks uniformity of results, and this, too, without any just grounds for accusing the one chemist or the other of lack of theoretical knowledge, or practical experience, or dishonest intent. The congress will render possible a reliable comparison of tests of different scientists in the manifold branches of chemistry, both among themselves and against each other, and it is evident that this work will result most satisfactorily to chemists generally. Indications are that a representative and full attendance will characterize the meeting.

VIRGINIA'S NEW PHARMACY LAW.

At the last session of the Virginia legislature the State Pharmaceutical Association was successful in obtaining the passage of a very satisfactory pharmacy law for that state. The bill introduced was in the shape of an amendment to the existing law, and, though it met with some opposition, it was passed with votes to spare. The new law provides for the registration of two classes of pharmacists, "registered" and "registered assistant." To secure a license as a registered pharmacist the applicant must give evidence of having served four years in a regular pharmacy, and must pass the examination before the State Board of Pharmacy. The "registered assistant" must have been two years in service and have passed the board's examination. Any "registered" pharmacist, within the provisions of this act, can control a drug store, except that an assistant may substitute temporarily. It is provided that in towns of 1,500 or less any recognized physician, who has practiced five years, may be entitled to the privileges of a "registered pharmacist" without examination. General merchandise stores have the same privileges as under the old law, the sale of poisons requiring registration common

to most of our pharmacy laws. The new act goes into effect July 1.

JOIN THE A. P. A.

The caption to the following few remarks is a familiar one. It is almost a standing heading in the printing office of any pharmaceutical journal, and it is not without reason that so frequently are druggists urged to become members of this national representative association of pharmacists. There are many reasons why a druggist should affiliate himself with an organization maintained for the sole purpose of furthering the interests of pharmacy. There are high motives which should prompt him, but though these be lacking, his own selfish views should show him the profit sure to accrue from such membership. For every dollar paid to the association there is returned to the member many times its face value. The notice published in our news department states the advantages of membership very succinctly and strongly. We would reiterate the arguments offered and urge upon pharmacists that they send in their applications for membership, even though they see no immediate prospect of attending the annual meetings of the association. The volume of proceedings, alone, is worth much more than the cost of membership. The druggist wishing to know the world's progress in matters pharmaceutical will find in the report on the progress of pharmacy in each annual volume a careful epitome thereof. The next meeting, to be held at Asheville, N. C., promises to be a notable one, of much profit socially and professionally.

A GOOD IDEA.

In this day of countless plans for the abolition of the cut rate evil, all having for their purpose the re-establishment of the old prices for patent medicines and the securing of trade in these goods to the retail druggist, it is refreshing to find an association of druggists working along more ethical and professional lines, endeavoring to advance their business by adding to their repute as compounders and prescribers and as manufacturers of remedial agents. The Kentucky Pharmaceutical Association, through its president, is working to secure the greater recognition of the National Formulary, and to this end has compiled a list of members of the association, each to bring or send to the next annual meeting a sample of a specified preparation made strictly in accord with the National Formulary. After the meeting a committee will be delegated to take the specimens to the convention of the State Medical Association, where the samples will be shown and given to physicians in attendance, and the committee will explain the scope and aims of the National Formulary, and endeavor to secure an indorsement of the work. It will readily be seen what an advantage such a step will be to the pharmacist and the physician. It will acquaint the latter with the Formulary, make him much more independent of agents, save his patients money, and render him absolutely certain of what he is prescribing. We believe that physicians generally will be glad to aid this effort, and we bespeak for our Kentucky friends the interest of the fraternity in the support of the proposed movement.

MICROSCOPY FOR PHARMACISTS.

A correspondent in this issue writes of the desirability of establishing a department of microscopy in this journal. We thoroughly agree with him that microscopy may be made of great practical service to the druggist, but for his information and that of others not familiar with the history of the Era, it may be well to state why such a department is not now a regular feature of this publication. During the first two or three years of the life of the Era a department of microscopy was maintained, being placed in charge of a thoroughly competent exponent of the science, and all matter published was selected with special reference to its adaptability to the pharmacist's needs. From the start, however, it was apparent that there was not manifested in this department so large a degree of interest and appreciation as its merits and its value to the drug trade would seem to warrant, and because of this lack of interest it was finally discontinued as a separate feature. Since that time there have been given in our pages many small items and even quite lengthy papers upon the benefit of microscopy to pharmacists, and whenever opportunity has offered we have urged upon the profession the general adoption of the microscope as a means of valuation of a wide range of articles in the stock of the drug store and, farther, as a source of considerable income when used under the instruction of the physician as a diagnostic means. Feeling the pulse of the drug trade, as we do, and being able to estimate pretty fully its desires, we must confess that there is not as yet a very general demand for information on matters microscopical. We are always ready to present this class of matter when we can feel that it will be appreciated, and when the time comes that there seems to be a sufficient demand to warrant us in again establishing a separate department for it, we shall be quick in our endeavor to meet this demand.

A JUDGE'S OPINION OF THE PENNSYLVANIA PHARMACY LAW.

In our news columns last issue was given the ruling of a judge in western Pennsylvania regarding the pharmacy law of that state. A physician was tried for violating the law in compounding medicines without a license as a registered pharmacist. It was shown that he and his wife owned stores and managed them without the certificate from the board which the law requires, and the physician plead in his own defense that he only compounded medicines prescribed by himself. The jury found the defendant not guilty, but saw fit to charge him with the costs of the case, a rather peculiar verdict. The outcome of this case is similar to that of several prosecuted by boards in other states, but there is a new feature in connection with it which is attracting some little comment. The judge in his charge to the jury characterized the pharmacy law as unconstitutional in that it was designed to protect the druggist and to create a monopoly in the drug business. After the case was settled the judge, in conversation with well-posted druggists, was stubborn in maintaining this view, and added to his former statements by saying that the act was inconsistent, inasmuch as it requires an examining board to pass upon the qualifica-

tions of pharmacists, but does not say what the qualifications of the examiners shall be. The newspapers have made this decision and the judge's remarks the subject of considerable comment, and it is to be regretted that there has been given such wide publicity to the matter, for those who have studied the question thoroughly and those who were instrumental in securing the passage of the act, and later in maintaining it, have abundance of argument and proof that it is a wise measure, thoroughly constitutional, and calculated, not for the benefit of the drug trade, but for the best protection of the public. Inasmuch as there has been no legal decision that the law is unconstitutional, there is little need for anxiety because of this judge's ill-considered expressions.

PROTEST AGAINST RAISING THE ALCOHOL TAX.

The proposition contained in the amended Wilson tariff bill to increase the tax on alcohol and all liquids containing it, has afforded much material for discussion, particularly in the drug trade. The Iowa Pharmaceutical Association sent out very carefully prepared and strongly worded circulars inviting the druggists generally to protest through their senators at Washington against the increase of the tax, giving substantial reasons for this position. It is to be regretted that certain legislators at Washington, notably a senator from Missouri, have seen fit to treat these protests with levity and have indulged in vilification of the druggists and impugning of their motives. The papers are full of the sayings of Senator Cockrell, who indulges in ridicule of the drug trade and claims that the only reason for the protests made is that the druggists of Iowa and other prohibition states want the alcohol tax to remain as it is that they may have more license in the selling of liquors as beverages and in violation of the law. This senator is truly making an ass of himself in the opinion of all who are at all conversant with the relation the drug trade bears to the alcohol traffic. All who are posted know that alcohol is an absolute essential to the conduct of the prescription pharmacy, and that the proposed increase of the tax would fall upon druggists alone, adding to the already heavy weight which they carry. So far as the liquor habit is concerned, there would be no less liquor sold as beverages were the tax a dozen times as great as it is, but in the retail drug trade alcohol is a necessary article, entering into the manufacture of many medicinal agents, and there is no justice in farther taxing it. We would have no fault to find with Senator Cockrell or any other person who would candidly discuss the question on its merits, even though we might radically differ from him as to the advisability of increasing the tax, but we do resent (and in this resentment we are sure we are fully qualified to represent the drug trade) the slanderous imputation that druggists as a class are naught but illegal liquor sellers.

In our correspondence department is presented a letter from a Pennsylvania friend upon this same subject, and we bespeak for him the cordial support of the fraternity generally in a strong effort to nullify any proposition to increase the tax on alcohol, which already amounts to five times its cost. There are many

men in the Senate who can be induced to present the matter in its true light, and it is the duty of every druggist to unite in a strong endeavor to fight any increase along the lines proposed. True necessity and justice would require a material decrease of tax or its total removal upon alcohol as used in medicine, the arts, and industries.

SALOON DRUGGISTS.

What a lamentable disclosure is that made by the Springfield (Mass.) Republican with reference to the sale of liquors by certain so-called druggists in the town of Westfield, Mass. Massachusetts has an option law, the workings of which, in some localities, have turned the prohibition idea in general into a farce. For a \$1 license the druggist is enabled to sell liquors for mechanical, medicinal and sacramental purposes without a physician's prescription, merely upon certain registry in a book provided for the purpose. The effect of this law has been that a lot of scoundrels have posed as druggists merely to enter into the indiscriminate sale of intoxicating liquors as beverages. They observe the form of the law in keeping the registration book, but the spirit of the law is regularly violated. In our trade department are given a few facts with reference to the state of affairs in Westfield, and it claimed that a rum business on an equally extensive scale is being carried on by certain druggists in many other towns in Massachusetts. The reputable druggists of Massachusetts realize what a discredit and disgrace are brought upon them through the actions of these mongrel saloon-keepers, and co-operate whenever possible with those who desire just legislation for the control of both pharmacy and the liquor business. As it is, the seeker after a drink has no difficulty in finding someone who is willing to supply him the liquor, merely upon his going through the form of registration, which in a majority of instances is false in every particular. That the words mechanical, medicinal and sacramental, are very elastic in their interpretation is evident, and Massachusetts toppers are people of many aliases. From the facts quoted it is evident, too, that the degree of thirst which afflicts some men in that state is stupendous in its magnitude. The facts speak for themselves, showing that no druggist can sell ordinarily and in absolute compliance with the law the quantities of liquor which are attributed to those in Westfield.

Cannot something be done to wipe out this great stain upon the drug trade?

REPLIES TO EXAMINATION QUESTIONS, SERIES NO. 1.

The editor has been very much gratified with the evidence of the thorough appreciation accorded to the publication of questions for self-examination. Replies have been received from every nook and corner of the United States and in such number that the advisability of instituting this department and continuing it is thoroughly established, but perhaps the most gratifying fact brought out is the general excellence of the replies, showing that the young men in our drug stores not only are anxious for the acquirement of pharmaceutical knowledge, but possess a very satisfactory degree thereof. There being no other reward than the satisfaction gained from study, it is plain that

the drug clerks are thoroughly aware of the responsibilities of the profession they have chosen and are in earnest in their desire to best qualify themselves for its duties. The answers show a very pleasing familiarity with standard works on pharmacy and the knowledge of how they are best consulted and their information put to practical use. The range of questions in the first series was made to test one's information in the several branches of learning which go to make up the whole of pharmacy. These questions were not intended to decide the fitness of the student to discharge the duties of the dispensing pharmacist, but rather to afford him means for testing his knowledge and directing his studies into the channels and in the directions most serviceable and calculated to attain the best results, and they have abundantly served this purpose, as the results show.

The plan of these series (which have now reached the number of four) will be continued as a regular feature of the Era, but, because of the large number of replies and the labor necessary in looking them over carefully and adjudging them properly, the presentation of a new series will be deferred until the May 15th number. We want to congratulate the young men who have become so thoroughly interested in this work and urge them to continue in the preparation of replies to the questions, for we feel that by so doing they will be able to acquire not only additional information, but have offered them the opportunity of putting into practical service and submitting to actual test what is already theirs. True knowledge is that alone which may be made of practical service, and until it be tested in some manner, its value cannot be adjudged. Farther, we solicit still greater response and believe that as series succeeds series interest will grow and they will very materially increase as a means of self-help and self-examination. We publish the names of those who were successful in answering the required percentage of questions submitted in Series No. 1, and would thank one and all for their cordial appreciation and support.

DERMATOL.

Considerable interest has been evinced with reference to Dermatol, which is merely the trade-mark name for sub or basic-gallate of bismuth, and a statement of the facts in the case, so far as they are known, may be of service. The name Dermatol is trade-marked in the United States, and the owners of this name have received United States letters patent upon a process for making it and upon the article itself as a new preparation. The Patent Office Gazette, page 1452, 1891, published the registration of the trade-marked name, and on page 329 of 1893 gives the claim on which patents on the process and product were granted. The drug trade wants to know if sub-gallate of bismuth may be made by anyone, provided it be not called dermatol and provided the patented process be not employed. Ordinarily, it could be said that anyone could manufacture the article if he were careful not to infringe property rights in trade-mark or patented process. But in this particular case there enters another element into the discussion. The patentees claim that their patent is for a new article of manufacture, their claim

covering sub-gallate of bismuth by whatever process it may be made, provided it has the properties of the product specified in the claim. They state further that this product was not known prior to any claim to it by themselves, and that the Board of Commissioners of the Unit d States Patent Office have so held. They state their determination to maintain their claims in the courts, if necessary. On the other hand, there are some manufacturers who are marketing subgallate of bismuth, and who state that it and the process for making it have been known for more than fifty years past, much prior to the date of discovery stated by the patentees of the article. The point at issue seems to be merely one of fact, whether a subgallate of bismuth was discovered prior to the date named in the letters patent granted upon it. The United States Patent laws state that the kinds of things which may be patented are an art, a machine, a manufacture, a composition of matter, an improvement, etc. In some cases an art is a process, and the United States Supreme Court has decided that a process may be patentable irrespective of the particular form of the instrumentalities used. A process is said to be a mode of treatment of certain materials to produce a given result. It is an act, or a series of acts, performed upon the subject matter to be transformed and reduced to a different state or thing. A process is just as patentable as a piece of machinery. It is plain, therefore, that the proprietors of Dermatol may protect this name, and, farther, may protect their patented process of making the article. The only point to be settled is whether the product is a fit subject for a patent and whether the patent office did not err in granting it a patent. The new National Dispensatory publishes a process for making subgallate of bismuth, which is different from that outlined in the letters patent referred to, and there have been other methods proposed, and some, we believe, are in actual service for making the article. The courts will undoubtedly protect the owners of Dermatol against infringement of this name and the process described in the patent, and the trade will await with interest the outcome of any litigation with reference to the preparation of the product itself. If it can be proven, as the owners of Dermatol claim, that it is a strictly new invention and product, they would seem to be very fully protected against all manner of infringement, but other good authorities claim to be able to demonstrate that subgallate of bismuth is not a newly-known substance, but has been familiar to pharmacists for many years.

ANOTHER PLAN.

When things political and economical seem sadly out of joint, and the Senate of our country is apparently stopping its ears and holding its head in a vain endeavor to think, it may show either a lack of interest or ability on the part of a citizen who does not rush forward with a "plan" for disentangling the kinks which seem to have so thoroughly involved the straight lines of tariff reform. There is an unmistakable current of dissatisfaction running through business circles, which is shaping itself into demands that our Legislature either "fish or cut

bait," and whichever they elect to do, to do the same quickly and the suspense. It is beginning to dawn upon some of our strong-lunged partisans that economical matters are not, after all, so much a question of party as many patriots have supposed, unless the political parties can be divided upon the pocket-book basis. It is in times like these that the makers of plans find ready welcome, and it is noted that one in particular is receiving the attention of many who now see the difficulties lying in the way of party action in settling tariff matters, when a low tariff benefits certain people, and a high tariff benefits certain other people, irrespective of their torchlight-procession affiliations during the last campaign. Observing the brilliant results which have followed the institution of the Inter-State Commerce Commission and the Civil Service Commission, Mr. Coombs, a Democratic member from Brooklyn, and Mr. Joseph Cannon, Republican, of Illinois, have both recently proposed a similar body to take hold of this hot and restless tariff question, and, removing it from the arena of partisan politics, either still the noise, strangle it, or fix it up somehow. This plan has met with considerable approval from different quarters, and suggestions are now pouring in as to the proper way to put it into effect. There seems a decided unity in the demand that political economists (unless they belong to your own school of political economy), and politicians are to be debarred, and only business men, those supposedly well qualified to handle the ten figures and the \$ sign, be allowed to tinker with the tariff schedules. This subject is of course only called to the attention of the Era's readers for the sake of approving of the plan, and making an excuse for swelling the list of suggestions. In the first place, we should have a non-partisan president, one either engaged in some business, or in no business at all, to select this commission of business men, and, on account of the number of interests involved, and the peculiar significance of the number itself, it should be composed of thirteen members. Of course every citizen might consider himself eligible for such a position, but representative business men, men of affairs, should stand the first show. For instance, Mr. Carnegie is well posted upon the iron business. Mr. Havemeyer knows a little something about sugar. Mr. Rockefeller is an authority upon oils. Mr. Greenhut, of Peoria, might do something for us in the way of free alcohol for the arts. The Hon. T. W. Palmer, of Michigan, World's Fair connoisseur, and partisan agriculturist, might do wonders for the farmers. Mr. Frick, of Pennsylvania, ought to be able to say what is the proper thing to do with coal. We ought to have Chauncey M. Depew, in spite of his political tendencies, and he could fittingly represent the transportation interests of the country (or part of it). There would be no difficulty in making up the slate, except perhaps in fixing upon a representative for the drug interests. Here the wealth of good material might be an embarrassment. The ranks of the profession, from the modest drug store up to the highest eminence in the journalistic drug field, are crowded with an ability which yearns to sit upon a commission, and we are embarrassed ourselves when we think of it. But by all means let us have a tariff commission—right away, too.

(Written for the Era.)

PURCHASE BY INSTALLMENT—THE BRIGHTER SIDE.

There is a lady in Boston who believes that all the evils in the world have their direct origin in the Russian empire. Cholera, small-pox, cyclones, Tammany, corruption, labor riots and all forms of vice and disorder in Europe and America, she ingeniously traces to the special machinations of the Czar, whom, with his empire, she believes it to be her mission to expose and destroy. There are many similar examples cropping up from time to time of worthy private persons who concentrate their gaze upon some large and established institution, till they finally decide that they have at last discovered the first cause of all evil, and organize their misaloned accordingly.

Mr. S. P. Whitmarsh, who appears in the March list number of the Pharmaceutical Era with an admirably composed article on "Purchase by installment," has evidently determined that the origin of evil is the installment plan of selling goods, and has constituted himself the courteous and eloquent Don Quixote to destroy it. Like all persons who wander in this amiable phase of imaginativeness, Mr. Whitmarsh bases his presumptions on a large measure of truth. Improvidence is undoubtedly an evil, and to a large extent an American evil, and improvident people are apt to suffer from the result of their bad calculations. But improvidence is an evil as old as the world, and the installment plan is a very modern invention, and Mr. Whitmarsh produces no statistics or evidence to prove that the sufferings from this cause have increased in these later years. We emphatically maintain that it is not the case. Suffering from improvidence comes in the form of want, and the modern system of selling goods is to a large measure an antidote instead of a poison.

Worthy people without means have the opportunity of drawing upon their future prospects to supply their present wants, and so place themselves out of want. Outside of the installment plan this possibility does not exist for them, and this plan enables them to mortgage their capital—which consists of their health, their integrity, and their prospective savings—just as a city issues bonds upon its capital, payable over a long term of years during which the object for which it is expended is intended to spread its beneficial effects. In this respect the installment plan is an equalizer between the rich and poor.

The great majority of young men who enter the drug trade do so with very limited capital. There are no glittering prospects before them of sudden wealth to be accumulated by one or even many successful strokes, but instead the certainty of hard work during long hours and long years, and the prospect from the beginning of a reasonable competence, and a substantial saving not wealth, in the end. The great attraction is the dignity and noble purpose of the profession. The druggist is in the eyes of the world a little higher in the scale of honor and dignity than the member of any other retail trade. His education and intelligence are necessarily much above the average. But neither the attraction nor the prospects constitute any allurements for light-minded young men, and there are very few butterflies indeed in the

trade. On the contrary, the young men who enter it are unusually sober-minded, intelligent, practical and solid, with every inducement towards economy, and towards the knowledge of making a dollar go as far as possible. The majority of these young men bless their stars that, with the heavy outlay necessary to purchase their stock for cash, they are able to buy their fixtures and soda fountain on installments. In both these lines there is abundance of competition, sufficient to insure moderate prices, and Mr. Whitmarsh's allusions to a 400 per cent profit have no application to these, if they could have any application anywhere.

The lines of business which have the title of that profit are not very numerous nowadays, and the mere mention of such profit stamps Mr. Whitmarsh's whole point of view as impractical. The rate of profit must be commensurate with the risk, which undoubtedly increases with the length of time over which payment extends, and it is only natural and proper that a somewhat greater rate of profit should be computed upon goods sold upon the installment plan. But the necessity for this is largely offset by the fact that title in such goods is reserved in the vendor until paid for, and the risk is therefore minimized. The profits of the soda fountain companies are matters of public record, and their annual dividends are known to be from 6 to 10 per cent, which is a long way from 400 per cent.

The evils which arise from the installment plan of purchasing result only when the article purchased is secured to satisfy a desire for some luxury,—not a necessity—from which no revenue is derived, and which is therefore an expense pure and simple. This is surely not the case with either store fixtures or the soda fountain. The former are a condition precedent to doing any business whatever, and the soda fountain is bought purely for the sake of its daily returns. It is true that it is often highly attractive and ornamental, but the whole influence of its attractiveness is turned into the channel of profit. The men who make the most money out of soda water are those who have large and handsome apparatus. The druggist knows that soda water is the best paying part of his business, and that, if he can only establish a good soda water trade, he need not lie awake nights thinking how he shall make both ends meet.

Mr. D. S. Carraway, in an admirable article in the March number of *Merck's Market Report*, writes: "The most profitable of all side-lines, in my experience, is soda water; to me it is the best paying part of my business, and I am going to tell you how I make it pay"—which he does tell in words of gold.

The percentage of profit from the sale of soda water is far greater than the extra interest which the druggist has to pay for the convenience of paying by installments. The druggist knows the difference between these two rates without our mentioning figures. It is therefore clear that, if he is able to secure a trade in soda water, his investment is on the soundest basis possible, since the returns must exceed the expenditures.

The obtaining of custom is a condition precedent to success in any business, so that no special risk attaches to the purchase of a soda fountain, even if bought on installments. In fact, the young druggist who should follow Mr. Whitmarsh's

advice not to buy his soda fountain till he had saved the money for it, would probably have ample time to make his selection, and should be able to appreciate his Rachel after the long years of waiting. During those years he would be thrown out of competition with his older rivals in the trade, and would have nothing but those terrible thirty day bills to treat as the sources of his savings. The young Ph. G. will, we think, find the humor of Mr. Whitmarsh's suggestion rather grim in its character.

Mr. Whitmarsh forgets that in business, as in everything else, things find their level. Systems with a basis of greed on one side and gullibility on the other are not long-lived. But the installment system, though modern, has gone on increasing in strength till it envelops whole lines of trade, and includes many houses of world-wide reputation, and its roll of patrons is probably as unblemished as any system of trade can display. These houses are governed by business considerations in extending credits; it is as much folly for them as for other business people to permit their agents to overload customers. They are compelled in the nature of things to be extremely lenient in their collections, and, if the sentiment of their customers would be taken, they would probably be found distinguished for liberality instead of extortion. It is their interest to have the good will of the whole trade, which can only be held by methods which are at least just, and which lean towards liberality.

All systems of credit have their abuses, and we will not claim that none arise under the installment system. Errors of judgment both in selling and buying will undoubtedly be made at times, but the struggling druggist will continue to rejoice that, while fixtures and a soda fountain are necessary to him, he can secure them upon easy terms. And when his soda fountain more than pays for itself, that is, while the profits from it exceed his payments to the manufacturer, he will be still less likely to complain. The installment system is a giant, and a good giant, and its virtues furnish the obstacle to Mr. Whitmarsh's success in this instance as a giant-killer. The general principles which he lays down are undoubtedly good, and undoubtedly there are cases, even under the installment system in which they apply, but these are exceptional. As far as the influence his article may serve to reduce any of the possible evils, it is good for both seller and buyer, and is in all respects praiseworthy. But the installment plan is here to stay; it is a big boy now, and critics would do well to direct their efforts towards improving the development of that which they cannot destroy.

A. B.

BISMUTH SUBGALLATE IN LONG-STANDING DYSPEPSIA.—Flint has been in the habit of prescribing the drug in capsules containing five grains each, but of late he has given it in the form of tablets, which are more convenient and seem to act more favorably. (N. Y. Med. Jr.) One capsule or tablet is given before or after each meal. He refers especially to four cases in which the duration of the dyspepsia was eleven, six, four and three years respectively. In all cases the distress and flatulence promptly disappeared.

PHARMACEUTICAL EDUCATION.*

I have read, from time to time, much on the subject of pharmaceutical education, and am of the opinion it is of far greater importance to the general public than to the pharmacist himself. In considering any subject, one must view it as it is, and then as we would have it. To determine our present position, we have but to ask, concerning our present applicants for examination, who they are? Their age, education and success as practical pharmacists.

First. As to who they are, you will find that a large per cent are boys with a very limited common school education, induced to select the calling because of the supposed short road to the almighty dollar. As a rule, they never have been interested in school and are unable to study. Unable to study! you say. Yes. I think I am safe in saying that four of every five that present themselves for instruction are unable to study. There are a great many reasons for this; but the foremost is, they have been taken from the common schools before they have learned to study. There they study one hour, recite their lesson the next, and then forget. With this undeveloped and plastic state of the mind, they accept the position of janitor in some drug store, or, perhaps, undertake to manage a soda fountain.

Now, with this kind of work, what will that mind do? Nothing. The boy becomes a mere machine, doing and undoing as his employer touches the spring, and this experience meets the requirements of the law. If, per chance, he should have time to study, how will he proceed? Too often by memorizing the contents of some quiz compend, and with this, himself a machine, he presents himself for examination, happens to pass, is given his certificate, and is considered equally competent with those of years of experience and study. This method gives but a bubble that may float to apparent success, but let it strike on one of those knotty problems, let it come in contact with that rough exterior, formed by interwoven theory and practice, it breaks, falls, and leaves but a drop to warn the observer to pass on but profit thereby. Other evils may be located in our colleges of pharmacy, for no school is without its shortcomings.

But let us suggest: The mind that is to plan, govern and direct our very movements in compounding medicines must be well developed, trained, and supplied with the best channels through which to communicate with our physical working bodies. Then to this end, keep the boy in the public schools, let him complete a high school course where he will be taught to think and not to memorize. This high school course should be completed with an elementary course in chemistry, including qualitative chemical analysis, physics and botany having been studied before. My experience is, too many are advised that chemistry and botany are of no value to the pharmacist. In my opinion, there can be no greater error than this. God has placed before us mind and matter (if there be such a thing as matter). He has given us a greater quantity of matter than anything else, hence the greater the demand that

*Read before the Iowa State Pharmaceutical Association, March 14, by S. R. Macy, principal of the Pharmaceutical Department of Highland Park College, Des Moines, Ia.

we study matter, and the study of matter may be divided into two grand subdivisions, chemistry and physics, and it is the study of these two branches combined that gives us the best methods for the preparation of medicines. 'Tis a pity, but true, that too many are doing their best to cover with the mantle of practicality this very part that gives all the practical side there is to pharmacy.

Then, I say, take the boy from the high school, or, better still, from some scientific course, put him into the store, with his chemistry, physics and botany, there let him spend a part of the time studying the drugs from the proper standpoint, and after a reasonable time spent in the store, getting the proper kind of experience, let him attend some good school of pharmacy, where the thoughts may be planted one after another, until a good share of the present known field of pharmacy is plowed and planted, and upon the completion of this planting, the student graduates; i. e., he reaches a certain mark on the scale, or, if you please, he shows upon himself the mark of intelligence, placed by the combined efforts of himself and teacher. If he be a man after his Creator's idea, he will continue to graduate or make that standard himself, using the marks already made for rounds upon which to rise to nobler and higher things. Graduated! you say. Yes. Ready for the responsibilities of conducting a drug store. No. But before we can go on and do justice alike to this man and the public, new laws must be enacted; and before we can enact new laws the public must be educated, when the pharmacists turn teacher to educate them, and the pharmacist will not turn teacher until he is awakened to the situation. The public must be taught that medicines are not playthings to be put into the hands of children and the uneducated, but rather that they should be handled only by the most skillful hand and well trained mind. If a mind has the brain power to work, create and formulate, or, in other words, has the power to think, it is then qualified to direct and work externally. That the public must know.

Then let a law be enacted, having for its aim the protection of the public by the education of the pharmacists and keeping them educated. Let it prescribe the college course, make said course a requirement, recognize no degree, require some experience, examine all persons without exception, examination to cover both college course and experience, and the examination to extend over days instead of hours, put the applicant at the prescription counter, and if he be able to stand the test, give him a certificate that entitles him to the right to practice pharmacy six years. Give him to understand that he must keep abreast of the times by cultivating the habits of intellectual industry. Examine him some time during the early part of his sixth year under his registration. Then, if after a fair test, he shows that he is intellectually lazy, or that his cup was full before and can not hold more as civilization and education advance, let him step down and out. This is what the public should demand, and what it should receive. Then, and not until then, will pharmacy have reached its true standing.

AMIDO-ANTIPYRINE. — Antipyretic, more soluble than antipyrine.



PROFESSOR EDWARD SCHAEFER.

Prof. Edward Schaefer, the son of a jurist, was born on the 7th of December, 1842, at Bern, Switzerland, where he received his first schooling. Originally intended for the ministry, he was obliged, through falling health, to forsake his theological studies for an occupation which would combine a desirable amount of physical exercise. An early liking for the natural sciences caused him to choose pharmacy; to begin the study of which he left the Obergymnasium at Bern in 1861 to enter the well known Hagenbach Pharmacy at Basel. While at Basel he had the privilege of attending the lectures of the physicist Wiedemann and the chemist Schoenlein at the university. The last named original and brilliant scientist had a strong and lasting influence upon the young pharmacist, so that he was not only interested in the careful study of the original chemical researches with which the discoverer of ozone and gun cotton was then engaged; but he also took upon himself the task of collecting the separate investigations of Schoenlein, which were scattered in different journals. From these Schaefer selected the following: "On Ozonized Oxygen," "On Hydrogen Peroxide," "On the Properties of the Ferments," and in a special essay he called the attention of the medical profession to these researches because of the uncommon physiological-chemical interest which they possessed.

He now left Basel to finish his apprenticeship at Geneva and Bern, and upon completing his "Assistants' Examination" he was engaged in Saxony as an apothecary, returning in 1865 to Bern to continue his pharmaceutical studies under the direction of his teacher and future friend Flueckiger. Passing the "Pharmacists' Examination" in Canton Bern, he conducted a pharmacy there for two years, when, through the assistance of a Bernese endowed scholarship, he was in 1869 again induced to leave his home in order to satisfy a long desired wish to broaden his knowledge by visiting larger scientific centers.

He resumed a part of the years 1869-1870 in Berlin, London and Paris.

At Berlin he heard the lectures of A. W. V. Hoffman, Magnus, Du Bois-Reymond, and attended the practical chemistry lectures of Prof. Wichehaus, at the same time conducting physiological

researches at the Charite Hospital, at which Prof. Liebreich was then engaged. In London, besides attending the lectures of Tyndall, Frankland, Attkid, and Redwood, he was especially engaged in the study of the large pharmacognostic and botanical collections of the Kew Garden, in the then existing "India Museum," and at the School of the Pharmaceutical Society in Bloomsbury Square. The summer months spent in Paris in 1870 were utilized principally in the closer consideration of the Gubourg drug collection of the Ecole Supérieure de Pharmacie, also of the Musée d'Histoire Naturelle in the Jardin des Plantes. Besides this the lectures of the physiologist, Claude Bernard, and the chemist, M. Berthelot, were heard, while several chemical researches in the latter's laboratory in the Collège de France were completed. The chemist Chevreul, then 80 years of age, through the recommendation of the Swiss geologist, Bernard Studer, greeted the young Swiss most friendly. Because of the war sentiment existing, things became unpleasant, and in the fall of 1870 he returned to his native city, where he was appointed a commissioner under the "Alcohol Laws" enacted at Bern. To fulfill this office he removed in 1871 to Zurich where in 1873 he undertook the management of the pharmacy of his future father-in-law, one of the oldest in the city, and conducted it personally until 1883.

His career as a teacher of pharmacy began in 1873, when, upon the invitation of the Swiss Board of Public Instruction, he first became a lecturer (Privat-docent) of pharmacy at the confederate Polytechnicum in Zurich. In 1874, given the title of professor, he was intrusted with the obligatory lectures on pharmaceutical subjects. It was not until 1881 that the Institute had established a really independent professorship for pharmaceutical and toxicological chemistry and pharmacognosy, which he filled until October, 1882, to then relinquish it in order to accept the chair of professor of pharmacy and director of the Pharmaceutical Institute of the Strassburg University, which Prof. Flueckiger had with such eminent and successful ability occupied for twenty years.

During his twenty years' residence in Zurich, which had become his second home, he was a member of the Pharmaceutical Examining Commission, as also of numerous official boards, and was for seven years president of the Swiss Apothecaries' Society; during the last three years he has been chairman of the Swiss Pharmacopoeia Commission. Of his researches in the field of pharmacognosy, pharmaceutical chemistry and chemical toxicology, published in chemical and pharmaceutical journals, the following may be mentioned: The cyanogen compounds, the guaia-copper reaction, cubeb-campor, quebracho bark, sun vomica, ergot, cyanin, carbonic acid, soluble oxides of iron, salicylic acid, benzoic acid, cubebin, guarana, ether, ethereal oils, chloralcyanhydrin, etc. A large number of his publications have reference to C. F. Schoenlein's researches on ozon, hydrogen peroxid and ferment materials, which it has been his endeavor to complete.

Among these which have appeared in the "Swiss Pharmaceutical Weekly," "Wittstein's Quarterly Journal for Practical Pharmacy," "The Reports of the

Berlin Chemical Society" and the "Journal of Biology," etc., may be mentioned: "Ozone and Antozone" (1866); "On a new ozon compound of organic nature" (Chinon), 1867; "Active oxygen and its physiological importance" (Festival writing for the twenty-fifth meeting of the Swiss apothecaries' Society, 1868); "Hydrogenperoxide and its relation to the ferments" (1889); "On the chemistry of oxygen;" "Contributions to the chemistry of the blood and the ferments" (1879); "Oxygen made active by slow oxidations" (1873); "On the influence of the alkaloids on the usual properties of haemoglobin" (1874); "On the influence of antiseptic means on the properties of ferment materials" (1875); "The significance of water in disinfection" (1884); "On the action of cyanhydric acid, chloral hydrate and chloralcyanhydrin on the enzyme, on germable seeds of plants and on lower fungi." (Festival writing of the Scientific Institutions of Zurich in jubilee of Prof. C. V. Naegeli and A. V. Koelliker of Munich and Wurzburg 1891). Another larger publication is the German edition of Prof. Plugge's work, "On the more important therapeutic agents in their varying chemical composition and pharmacodynamic action" (Jena, 1896).

Edward Schaer was associated with the publication of the Swiss Pharmacopoeia, second edition (1873), and of the supplement of the same (1876), and directed from 1889-1893 the work of the Swiss Commission for the new confederate pharmacopoeia which becomes official the present year. In recognition of these services he was in 1892, in consequence of his removal to Strassburg, given the honorary degree of doctor of medicine by the University of Zurich. When the curator of the Strassburg University was compelled to accept the resignation of Prof. Flueckiger from the Natural Science Faculty, the keen feeling of regret exhibited by the immediate faculty at the loss of one of its most prominent members was soon communicated to the deeply attached students as well as the university at large; which caused much careful reflection in the efforts of the university authorities in selecting a capable and worthy successor. In their deliberations upon the suggestion of Prof. Flueckiger, the present incumbent, Prof. Schaer, was chosen, and from the crowded laboratories and lecture rooms, together with the deep interest which each student takes in his work and the warm, friendly relationship existing between instructor and pupil, the selection has been a very important one, and to the list of names which the old Pharmaceutical Institute (repeatedly extended but still retaining its French architecture of fifty years ago) has had since its origin in 1820, another successful and excellent teacher has been added.

Personally, the professor is tall, with most affable and polished manners, an excellent lecturer, instructor and linguist, and possessed of that fascinating modesty so characteristic of the Swiss.

RESORCYLAIGIN.—Antiseptic; made by the action of potassium resorcyate on antipyrine. Potassium resorcyate (resorcinate) made by boiling 1 part resorcin with 5 parts K_2CO_3 and 10 parts water. Resorcyalaigin is slightly soluble in water, very soluble in alcohol. Because of its strong acid properties, forms soluble salts with alkaline bases.

SHALL THE PRACTICE OF MEDICINE AND THE PRACTICE OF PHARMACY CONTINUE DISTINCT AND SEPARATE.*

By J. M. Good Ph D. G. St. Louis, Mo.

By giving a place for the discussion of problems in pharmacy in this organization, the intimate association of the two callings and their mutual dependence upon each other is emphasized. Yet it is scarcely to be expected that our sessions will be the ones most numerously attended. Those in both professions whom we delight to honor are they who confine themselves strictly to pharmacy pure and simple, or to the practice of medicine general and special. Nearly every physician has been made painfully aware, some time in his career, of his lack of pharmaceutical knowledge; hence we hope none will feel the time spent here has been wholly unprofitable.

Materia medica, as the pharmacist studies it, is different from that which is taught in the medical schools, and while we are likely to get hints here as to the therapeutic actions of drugs, they will serve simply as a warning for us to confine ourselves to compounding, and let those better able to judge and discriminate take the responsibility for the effects of drugs. In discussing some problems in which our two professions are interested, I am not unmindful of the fact that those whom I am about to criticize do not attend conventions and to a great extent they are indifferent as to our opinions of them.

In this section we, physicians and pharmacists, meet on common ground, and we can be mutually helpful. We may criticize each other, but always in a friendly way, I hope, and we may ask and answer questions to the edification of all.

It is too frequently the case that a man's readiness to give advice on any subject is inversely to the amount of knowledge which he possesses in regard to it. This seems to apply particularly to persons who are ready to give information about the action of remedies and the treatment and care of the sick.

Just now there is in the professions of medicine and pharmacy a disposition on the part of each to usurp the functions of the other. This is not the case, however, with the busy or successful man in either calling. He whose time is fully occupied is not likely to suspect any one of invading his field.

The exhibition of remedies is attended with a considerable degree of uncertainty at best. To know definitely the therapeutic action of drugs requires clinical experience with careful and intelligent observation at the bedside of the sick.

Accurate diagnosis must precede these. It is a weighty responsibility which rests upon the physician. Fortunately for him, as his stock of experience increases and his years multiply, he realizes these facts more forcibly than in the beginning.

For the druggist who recklessly and ignorantly assumes these responsibilities he has ill-concealed contempt. To his credit be it said he is willing to concede to the druggist all that he asks for himself, and he is just as prompt to condemn that foolish and dangerous legislation which assumes that the holder of a medical diploma is necessarily a person who, if not an expert and skillful manipulator of

drugs, may safely be intrusted in compounding and dispensing them. The absurdity of such a claim is so apparent as generally not to admit of argument. Aside from the injustice of this to the entire business and profession of pharmacy, there is the additional damage to the colleges of pharmacy. They should be strengthened, not weakened. It is the duty of each profession to uphold its educational institutions. We cannot, then, with complacency see the right to legally conduct a drug store conferred upon a man who has never served a day's apprenticeship in the business, when a period of four years of active service is required before a diploma from a reputable college of pharmacy will be granted. The easiest and shortest way to legal recognition is the one which will be adopted by the majority; the acquisition of knowledge is not a controlling influence with them.

Shall there continue to be the two professions, medicine and pharmacy, or only one?

If physicians convert their offices into dispensaries, and druggists, seeing their trade melt away, qualify as practitioners and add consulting rooms to their places of business, the dividing line will be obliterated in a generation.

This is retrogression; it is degeneracy. It is opposed to the natural tendency toward the division and distribution of labor and the segregation of all classes of workers into specialists. It is discouraging, it is demoralizing; and it seems to me some action by this section calling attention to the situation, would be timely and in order. Any steps taken should be such as would be approved by the conservative members.

Shall physicians dispense their own remedies; or shall the practice which has prevailed now for several generations of having the compounding done on order outside of the office, continue?

As I have already said, the busy practitioner is most likely to call the druggist to his aid. It will probably be said that the labor from which the old-time doctor was so glad to be relieved has been overcome by the modern methods in the manufacture of pharmaceuticals. How dainty, delightful, convenient and cheap are the tablet triturates for instance. Let the disciples of Hahnemann beware. Their occupation will soon be gone. Similia similibus curantur has ceased to be their strongest card. Sydenham, in his enthusiasm over what might be expected from the potency and convenience of the alkaloids, predicted that the time would come when a physician could carry around with him, in the head of his cane, all the remedies that he needed. His dream is not likely to be realized, for we have long since learned that the therapeutic action of a drug is very different from that of any one or several of its alkaloids.

Seeing this tendency on the part of physicians to do their own dispensing, it might be said that the wide-awake druggist will rise to the occasion and advertise his store as a "physicians' supply house." In time that may be all that will be left for him. At present, however, he is likely to have his triturates left on his hands, a perpetual reminder of mistaken enterprise.

It is impossible, as yet, to "meet all the indications" with these little tablets, and Dr. Saccharum Lactis, so long as he

*Read in the section on Materia Medica and Pharmacy at the forty-fourth annual meeting of the American Medical Association.

is obliged to send me an occasional prescription, will obtain his supplies through some other channel. But I am told that the triturates alone do not occupy the field? Hypnotics, alteratives, emmenagogues and rejuvenators multiply almost indefinitely. The habit of studying cases and selecting single remedies is becoming impracticable and polypharmacy again prevails.

"Physicians' supply" houses may or they may not turn out products which are accurate and reliable. The dispensing physician, unless he be a druggist, will naturally use the "ready-made" prescriptions.

Many who do not dispense justify the habit of ordering them on the plea that they are more skillfully prepared than will be the extemporaneous prescription in the average drug store. It is in order for pharmacists to question this. The "manufacturing pharmacist" cannot monopolize either knowledge or skill. The manager of the establishment is seldom a manipulator of drugs, and often the assistants have placed upon their services a very low pecuniary value. I do not say this in a spirit of condemnation, but to show that in the use of such preparations there is not the universal safety which some suppose. For the most part they are not dangerous, since in the manufacture of the so-called "elegant" pharmaceuticals there has not yet been discovered any way of disguising disagreeable drugs that is so successful as omitting a large part from the mixture. To any one having the best interests of medicine and pharmacy at heart this state of things is not gratifying. Druggists who by years of faithful labor have established a reputation will not be seriously affected, but the inducements for others to come forward and take their places are growing small by degrees and beautifully less. The following, quoted from a circular recently received, is a good example of the claims of superior skill which are often made by the mixers of proprietary remedies:

An elegant preparation, in powder form, resulting from the union of salol and acetanilid, skillfully combined with an alkali, which, with the peculiar method of compounding, greatly modifies and positively improves the therapeutic effects.

In point of quality, as a fine and scientific pharmaceutical product, this preparation is surpassed by none. The chemist properly apportions the ingredients and the elements are combined by positive chemic laws, that always produce perfect and uniform results. This careful method is observed that the greatest possible therapeutic benefits may be derived from the union of the composing elements, and a peculiar and entirely new therapeutic agent is the result. The proprietors spared no time, labor nor expense that they might present to the medical profession a perfect remedy in its class, uniform in strength and action.

In comparing the claims of this with similar preparations in the market, we invite the particular attention of the profession to this fact: We state positively what it is made of. We do not refer to coal tar derivatives in any mysterious or indefinite way, but state plainly that acetanilid and salol furnish the active elements.

Will the physicians who prescribe these remedies, and the patients who afterward recommend them to their friends

and purchase them without prescriptions, never learn that it was to make money and not to benefit mankind or alleviate their sufferings that actuated their originators?

In the mid of these conveniences in the shape of ready-made prescriptions, triturates and mixtures of various anti-pyretics the labors of the advertising specialists are made easy and, much to the injury of both physicians and druggists, the free dispensaries multiply.

It will be maintained by some, perhaps, that the druggist has only himself to blame for his vanishing business, they claiming that either by his practices or his incompetency he has forfeited the confidence of the medical profession. We must ask for a "stay of judgment" in this matter. Do not condemn all or any considerable part. It is allowable to discriminate against dishonorable, dishonest and incompetent men wherever we find them; they are as likely to be found in the pharmaceutical profession as elsewhere, and no more so. According to my observation, pharmacists are as a class careful, painstaking, and well qualified to stand where they are often needed, between the prescriber and the patient.

We are all fallible, and every man, some time in his life, will probably be obliged to acknowledge his responsibility for errors. The blunderer and the possible victim are alike fortunate when some one stands between them. This is possible only when the prescriber and the dispenser are two persons.

HOW ALUMINUM IS OBTAINED FROM ORES.

Aluminum is now so rapidly growing in demand with the cheapening of the metal that it attracts more or less popular attention. In the form of clay the metal is all around us, but this ore is too poor in the metal and too difficult of working to make it a profitable source of supply. Corundum is the oxide and theoretically nearest the metal from a metallurgical point of view. Indeed the metal has been extracted from this mineral on a small commercial scale, but the supply is too limited.

The metallurgy of the aluminum is theoretically the same as iron, that is, the compound used for extracting the metal in each case is an oxide. The oxygen in both cases is removed by carbon. The facility of carrying into practice the extraction of the metal is entirely different. In an ordinary blast furnace the carbon of the coal or coke easily extracts the oxygen from the iron ore, so that a pound of two of coal produces a pound of metallic iron. The oxide of aluminum defies such easy processes, and requires a temperature vastly greater than the fiery iron furnace. This is obtained by electric currents and a process of electro-metallurgy is adopted. A trough is lined with gas carbon. In this, cryolite, to the extent of 500 pounds, is placed. Into this press, enormous electrodes are inserted, and the heat melts the cryolite, which is not decomposed by the electricity. With this fused mineral, about a third of its weight of oxide of aluminum is mixed, and it is soon dissolved. In this condition the aluminum compound is decomposed, the oxygen being removed at the expense of the carbon electrodes, and the molten particles sink in the cryolite (fluoride of aluminum and sodium) is not consumed, the operation is continuous. However, the affini-

ty between the metal and the oxygen is so great that not merely the carbon of the electrodes is consumed, but about 75 pounds of coal are needed to develop horsepower to produce electricity enough to decompose the oxide.

From the method pursued, we see, says Science, that the ore most available is that nearest approaching an oxide and rich in the metal. Of the natural compounds occurring in large quantities, bauxite is the most important. This is essentially a hydrated oxide of aluminum, but with usually an admixture of oxide of iron and ferruginous. A high grade ore contains 60 per cent of alumina, only one or two per cent of each of the other constituents, and the balance is water. In this country, the bauxite occurs in Georgia, Alabama and Arkansas. It is from the recent volume on the Paleozoic Belt of Georgia, by Dr. J. W. Spencer, that the materials for this notice are derived. This report is the most exhaustive treatise upon bauxite which has appeared in this country. The mineral occurs in masses of small concretions in great products in the Knox dolomite (the lowest formation of the lower Silurian system). Where it is formed, the calcareous matter has been leached out of the impure limestone, leaving a great mass of peculiar siliceous clay or loam, which is sometimes 200 feet thick. This represents that as much as 2,000 feet of limestone have been removed from the region, which has been exposed to atmospheric degradation for long geological ages. As the alumina has resisted solution, a process of concentration has gone on so that the accumulations make themselves conspicuous. The ore always occurs in proximity to brown iron and manganese ores. The author explains their occurrences as having been brought down in solution by streams and deposited in lagoons, in which the limestones were also forming. The author gives us here an interesting chapter on chemical geology, without saying so in his treatment of the origin of bauxite. Under the conditions of occurrence ferric oxide often replaces a portion of the alumina, sometimes to the extent of twelve or fifteen per cent. This, however, is no injury, for in preparing alumina for furnace uses a valuable by-product is obtained. Silica may sometimes reach 20 or 30 per cent. In this case the mineral must be considered more or less a mixture of bauxite and clay. Amongst the bauxite, iron and manganese deposits, dark pockets or "horses" of clay, or often kaolin, are frequently seen. When the silica is present in such quantities the mineral becomes too poor to be of use. For making alumina the bauxite is fused with soda, from which mass the pure alumina is extracted. With the visible supply of bauxite and greater economy in the power consumed, we may hope before very long to see the metal at twenty-five or thirty cents a pound, when its uses in the arts will be enormously increased.

CREOSOTAL.—A mixture of carbonates of gusiocol and homologues found in creosote; is prepared by passing a current of phosgene COCl₂ through a solution of sodium creosote. A viscous liquid, inodorous; insoluble in water, glycerin and dil. alcohol. Substitute for creosote. Dose, 10 to 20 gms. Does not disturb the digestive functions; in the intestines it splits up into creosote and CO₂.

PHARMACY.

SPENT GINGER is found in the trade in England.

CAFFEINE OXALATE, says Merck, is a true salt, occurring as a white, crystalline powder, soluble in water and alcohol.

BISMUTH SULPHOCARBOLATE is a tentative candidate for favor as an antiseptic. It is a faintly red powder, soluble in water.

QUININE AND URANIUM CHLORIDE is described by Merck's Berich as a yellow, crystalline powder, soluble in water.

TO REVIVE LINOLEUM.—Carefully melt together 18 ounces of solid paraffine and 1 ounce palm oil, remove from the heat and incorporate 4 ounces kerosene.

DANGEROUS ERROR.—The National Dispensary makes an inexcusable error, says New Remedies, by misquoting the synonym for phenyl-urethan as "euorphin." The name is "euphorin."

MORPHINE IN SOOTHING SYRUP (Ch. and Dr.).—The agents of Winslow's Soothing Syrup inform the trade of England that the exact proportion of morphine contained in this preparation is one-eighth of a grain to the ounce, thus making the maximum dose one-sixty-fourth of a grain.

PHENATED LIME.—This disinfectant (chaux phenique) used largely in Russia, is prepared by thoroughly slaking three parts of lime with five parts of water and adding under constant stirring and in small portions two parts of gas tar. The yellowish-brown mass thus procured is mixed with water and used in liquid form.

ACTION OF SODIUM UPON WATER.—When metallic sodium is placed upon water a sudden explosion takes place, with decomposition of the water. The cause of this action has not been definitely settled, but from recent researches M. Rosenfeld concludes that a compound of hydrogen and sodium is formed which, through sudden dissociation, is the cause of the explosion.

DIPHThERICIDE is a diphtheria medicine prepared in pastilles consisting of gutta percha and gum damar, bearing as remedials sodium benzoate and thymol, with saccharin. Three or four of these pastilles are to be chewed daily, like chewing gum, and J. Bergmann claims they are quite efficient in catarrhal affections of the pharyngeal mucous membrane in children.

SANITATION IN MECCA.—The Turkish government, we are informed by Ch. and Dr., is working to lessen the danger of the outbreak of cholera epidemics among the pilgrims who visit Mecca and other holy places. Several new lazarettos are to be equipped along the lines of pilgrimage. Disinfecting stoves have been ordered for the hospital which it is proposed to build near Mecca.

SODIUM PEROXIDE is coming into much popularity as a bleaching agent. It is used by dentists, in 40 or 50 per cent solution, for bleaching teeth, and is finding wide application along industrial lines. It is a white powder, easily soluble in water, which decomposes it into peroxide of hydrogen and sodium hydroxide. The latter is often of advantage from its solvent power on fats and other organic bodies.

LIQUID CARBOLIC ACID.—C. F. Henry presented a paper upon this subject to the Edinburgh Chemists' Assistants' and Apprentices' Association last month. He claims that the best results are obtained by using 90 liquid parts carbolic acid, 7½ liquid parts water, and 2½ liquid parts alcohol. Other speakers suggested that the stability of the liquid at low temperatures might be attained by adding 15 rather than 10 per cent of water.

PREPARATION OF OXYGEN.—Delamotte (in Repertoire) recommends that pharmacists prepare oxygen by allowing water to fall drop by drop upon sodium peroxide. The reaction may be checked by mixing the compound with an equal quantity of sand. Bardet adds water to a mixture of 50 grams barium dioxide with 60 of potassium permanganate. A little ozone in the oxygen is thus produced, but not in sufficient quantity to render it objectionable for respiration.

IODIDE OF NITROGEN.—There has always been some doubt about the formula of iodide of nitrogen. The Ch. and Dr. quotes Dr. Senhay, of Buda-Pest, who has succeeded in proving its composition to be NII₂, by replacing the hydrogen atom by sulphur. This sulphur compound is obtained by adding powdered oxide of sulphur or an ammonia solution of silver nitrate to nitrogen iodide suspended in water. It is a black, flaky substance in appearance.

KLORODYNE.—An English patent has been granted for a new and improved method of preparing chlorodyne, whereby it is made into a solution which does not separate into different parts. The new article is termed Klorodyne and is made after the following formula: Two parts morphine hydrochlorate, 1 part oil peppermint, 120 parts chloroform, and 30 parts ether are dissolved in 300 parts alcohol. This solution is then added to 24 parts glycerine. The parts directed are fluid parts, rather than parts by weight.

ANALGEN AND ANALGINE.—Notes on New Remedies, in answer to a query, indicates the difference between these substances. Analgen is a synthetic product, of antipyretic properties, chemically ortho-oxyethyl-ana-monoacetylamidochinolin. Analgin is a proprietary article, and there are two of it. One hails from Kansas, and is described as an analgesic, antipyretic and anodyne; the other claims to be "a combination of the active principles of Camellia Thea, Apium Graveolens, Saccharine and a Carbo-Hydrate."

PRESCRIBING BY TEASPOONFULS.—L. F. Bishop, M. D., writing to the N. Y. Med. Jr., says: "Before prescribing I ask the patient to select from among the spoons in my office one resembling that which he habitually uses. Then I hand the patient a four-fluid-ounce graduate and a bottle of water or of any handy fluid that is of about the same specific gravity as the medicine I intend to prescribe. Now the patient is instructed to pour out doses and place them in the graduate. When the fluid doled out reaches one or two fluid ounces I stop him, and write my prescription on the basis of five, six, seven, eight or nine doses to the fluid ounce, according to the number of doses to the fluid ounce he has placed in the graduate. I have been surprised at the constancy of the personal equation in this simple operation in each individual, and at the wide difference between individuals."

ACIDS IN VINEGAR.—A test for the detection of mineral acids in vinegar, recommended by Chem. Ztg., consists in the addition of one drop of a solution of 25 drs. of fuchsin in 100 cc. of 90 per cent alcohol to the vinegar contained in a porcelain capsule. If the vinegar be pure, the reddish-violet color of the indicator will be unchanged, but in the presence of mineral acids, the liquid acquires a dirty yellow tint. Neutralization with alkali will restore the color of the fuchsin.

ACTION OF SOLVENTS ON GERMICIDES.—Recent experiments have determined that certain solvents usually used with germicides have very decided effects in reducing the germicidal properties of these substances. Thus, absolute alcohol completely neutralizes the germicidal action of carbolic acid and corrosive sublimate with reference to anthrax, and it is necessary to add considerable water to the solution if the antiseptic property is to be restored. Olive oil renders carbolic acid and lysol inactive as disinfectants. Glycerine, if it contains less than 40 per cent of water, impedes the action of corrosive sublimate, and 10 per cent solutions of carbolic acid when they consist of less than 10 per cent of water. (Ph. Jr. through L'Un. Ph.)

PENCILS FOR BARBERS' ITCH.—Nat. Dr. extracts from Sem. Med. a formula for preparing pencils for the local treatment of barbers' itch. One part of rosin, seven parts of yellow wax, and six parts of olive oil are melted over gentle heat and then six parts of chrysarobin carefully stirred in. At the proper time pour into molds, making pencils of a convenient size. In using these pencils go over the entire affected surface with the point of the pencil. Avoid touching or smearing the hair. This is to be done at night just before retiring. Cover the part with some impermeable tissue to prevent staining the pillow and to guard against getting the chrysarobin in the eyes. In the morning remove the residue by rubbing with olive oil. Keep up the treatment until the surface becomes irritated, when it is suspended and every night zinc ointment is applied, removing the residue every morning with olive oil until all irritation has ceased. If the disease still exists, the treatment must be repeated.

ARTIFICIAL SUGAR.—Bradstreet's quotes from the Revue Industrielle to the effect that there is much excitement in the northern districts of France, where a great deal of beet-root sugar is manufactured, about a process for making sugar by the synthetical method, with lighting gas. The description of the process does not excel in its clearness. In a box, which is hermetically closed, is a porous partition on which a layer of "mousse de platine" is deposited. A current of lighting gas is allowed to enter into the box; condensation takes place, and the result at the other end of the box is a sugar which, according to our contemporary, shows all the "organoleptic" qualities (whatever that may be) of commercial sugar. Sugar made by this process would cost only a few centimes per kilogram. On the other hand, many eminent chemists hold that the problem of the synthetical production of sugar is far still from a solution, and that beet-root and sugar-cane will for a long time yet defy the attempts of replacing them by merely chemical methods.

EXAMINATION QUESTIONS.

This Department is for the publication of questions and answers from our readers; the object being to place before them questions for self-examination and to indicate the directions in which study can be profitably carried on.

We select questions to which replies are desired, particularly questions suggested by personal experience and study.

Correct Answers to the questions in each series will be published in a subsequent issue of the paper, as announced, together with the names of all persons sending us correct replies.

Write the Number of the series at the top of your reply and write on one side of sheet only.

Address—EDITOR PHARMACEUTICAL ERA,
BOX 583, DETROIT, MICH.

SERIES NO. 1.

Correct answers to these questions, together with the names of all persons answering correctly eight or more of them, will be published in our April 1st issue.

Replies should reach us not later than March 15th, 1894.

1. Give meaning of the term evaporate, and state the difference between evaporation and distillation.

2. What is the difference between a sediment and a precipitate.

3. Give the official fluid or liquid measures, their abbreviations, and their equivalents in minims. (By "official" is understood U. S. P.)

4. What is the official thermometer? Why is mercury especially adapted for use in thermometers? Convert—10° R. into degrees temperature official standard.

5. Write a prescription for a four-ounce emulsion containing 25 per cent of castor oil. Give all the ingredients to make an agreeable and homogeneous mixture, with directions for compounding.

6. What significance is attached to the terminations ate and ite in the nomenclature of salts?

7. Define fermentation. What is a ferment? Give examples (pharmacopoeial) of the products of fermentation.

8. How would you distinguish between morphine and quinine? Between corrosive sublimate and calomel?

9. Two ounces of distilled water at 15° C. will dissolve how many grains of each of the following? Potassium chlorate? Boric acid? Epsom salt?

10. State the difference between annual, biennial and perennial plants, and give an example of each.

ANSWERS TO SERIES NO. 1.

1.

Evaporation. To convert a substance into vapor by means of heat. In a general sense, evaporation signifies the separation of moisture from any body, whether liquid or solid. In pharmacy the term has a more restricted sense, signifying the liberation of a liquid below its boiling point and directly from the surface exposed to the air. In the form of a vapor, with a view to obtaining the less volatile portion. Evaporation is employed in the preparation of various extracts, scale salts, in the concentration of syrups, etc.

Distillation is the vaporization of a liquid or solid, followed by subsequent condensation of the vapor. As generally defined, it is a process for separating and condensing the volatile from the more fixed parts of a substance by means of heat. When the volatile matter condenses as a solid body, the process is called sublimation. When the process is

repeated a number of times to secure purity from less volatile matter, it is termed rectification. Destructive distillation refers to the decomposition of organic substances by heat and the condensation of their volatile constituents, while fractional distillation is the term employed to represent the successive separations, by distillation, of substances which vaporize at different temperatures.

2.

Sediment is solid insoluble matter separated by gravity from the liquid in which it has been suspended. A precipitate is solid matter separated or thrown down from a solution by means of light, heat, or chemical action. In a chemical sense, precipitation implies the production in the liquid by the action of a gas, solid, or other liquid, a new product which is insoluble in the solvent present.

3.

The official fluid or liquid measure is that of the metric system, the unit of which is the liter. The liter, rarely abbreviated, is equal to 10 deciliters, or to 100 centiliters, or to 1,000 milliliters. The terms milliliter, centiliter, and deciliter are rarely used; but the term cubic centimeter is generally employed to designate the one-thousandth part of the liter. In the pharmacopoeia it is understood to be synonymous with the term milliliter, and, when abbreviated it is written Cc. The liter is equal to 0.264,170,467 liquid gallon, or 33 fl. ounces and 306 minims, or 16,230.6 minims. The cubic centimeter is equal to 16.23 minims.

4.

The centigrade thermometer is declared to be the official thermometer, though in its absence the Fahrenheit thermometer may be employed. Mercury is especially adapted for use in thermometers in that it has a low specific heat, has practically uniform expansion between—36° C. and +109° C., opaque, does not adhere to glass, is easily obtained pure, is cheap. Its high boiling point and the low temperature at which it congeals (a range from about +359° C. to nearly —10° C.), and its rapid movement, it is admirably for the purpose. Its disadvantages are: it expands irregularly below —36° C. and above 109° C., solidifies at —40° C., and —40° F., and boils at 350° C. (662° F.). A temperature of —10° R. is equal to —12.5° C. or +9.5° F.

5.

An emulsion containing 25 per cent of castor oil may be made after one of the following typical formulas taken from the National Formulary, the proportions of the various ingredients being adapted, of course, to meet the requirements of the question in hand:

Castor oil	1 fl. ounce.
Acacia, in fine powder	2½ drams.
Tincture vanilla	45 minims.
Syrup	6 fl. drams.
Water enough to make 4 fl. ounces.	

Mix the syrup with ½ fluid ounce of water and triturate to a smooth paste. Then gradually incorporate with it the castor oil. Transfer the mixture to a bottle, add the tincture of vanilla, and enough water to make 4 fluid ounces. Finally, mix the whole thoroughly.

Second method.

Castor oil	1 fl. ounce.
Mucilage of Irish moss	1 fl. ounce.
Tincture vanilla	48 minims.
Syrup	6 fl. drams.
Water, enough to make 4 fl. ounces.	

To the mucilage of Irish moss, con-

tained in a suitable bottle, add the castor oil in divided portions, agitating each time until the last added portion has become emulsified. Then add the tincture of vanilla, the syrup, and enough water to make 4 fluid ounces. Finally, mix the whole thoroughly.

According to the National Formulary, emulsion of castor oil may also be prepared by other methods of emulsifying the oil, provided the vehicles and ingredients are compatible with the therapeutic employment of the preparation. In the absence of any specific directions of the prescriber, the work recommends that castor oil emulsion be only prepared either by means of Irish moss or by means of acacia.

6.

When two oxygen acids are formed by the same element, the name of the one containing the lesser proportion of oxygen terminates in "ous," the other in "ic;" thus $HClO_2$, chlorous acid, and $HClO_3$, chloric acid. The same rule applies to oxides and hydrates, if more than one is formed. If there is another oxygen acid of the same element which has less oxygen proportionately than the "ous" acid, "hypo" is prefixed; thus, $HClO$, hypochlorous acid. If another is present with more oxygen proportionately than the "ic" acid, "hyper" or "per" is prefixed; thus, $HClO_4$, perchloric or perchloric acid. Acids not containing oxygen have the prefix "hydro" and terminate in "ic;" thus H_2O , hydrobromic acid.

A salt is a chemical compound formed by the union of an acid and a base, and it takes its name from the acid employed in its formation. Then, oxygen-salts, if derived from acids terminating in "ous," are called "ites;" thus K_2SO_3 , potassium sulphite (derived from H_2SO_3 , sulphurous acid.) If they are derived from acids terminating in "ic," they are "ates;" thus, K_2SO_4 , potassium sulphate (derived from H_2SO_4 , sulphuric acid.) In a similar manner, the terminations "ic" and "ous," when applied to oxy-salts, show a two-fold combination, as ferrous sulphate, $FeSO_4$, and ferric sulphate, $Fe_2(SO_4)_3$, mercuric chloride, $HgCl_2$, and mercurous chloride, Hg_2Cl_2 . In this case "ous" means relatively more of the metal than in the "ic" combination. The termination "ous" is sometimes replaced by "sub;" as Hg_2Cl_2 , subchloride of mercury.)

7.

Fermentation may be tersely described as the molecular decomposition which certain complex organic materials undergo under the action of peculiar bodies called ferments. A ferment is an organic body capable of exciting, under favorable conditions, chemical changes in other organic bodies with which it is brought in contact. A very general law governing fermentation is that ferments excite chemical change in other bodies, without themselves undergoing chemical change. Farther all ferment products inhibit their respective ferments, and an accumulation of these products beyond a certain per cent will arrest the fermentation, and this cannot be re-established until the per cent of accumulation is reduced. Ferments are divided into two classes:

(a.) Organized or living, those which grow and multiply at the expense of the substances in which they occur, but only so long as the ferment is living. All of

them are low orders of plant life, and, excepting yeast, are bacteria.

(b) The inorganic ferments are non-living, nitrogenous bodies, produced within the body by the vital activity of the protoplasm of the cells. In this class are ptyalin, pepsin, the fat splitting and milk curdling ferments of the pancreatic juice, the diastatic ferment of the intestinal juice, and the various ferments found in the blood, chyle, liver, milk, etc., emulsin as found in various plants, etc. Alcohol, various wines, brandy, whiskey, etc., acetic and lactic acids, oil bitter almonds, volatile oil of mustard, are pharmacopoeial products of fermentation.

8.

Identity tests for morphine:

(a) One part is soluble in 21 parts of water.

(b) With solution of chloride of iron it gives a pale blue color, destroyed by acids or alcohol.

(c) Nitric acid produces with it a red color, changing to yellow.

(d) Chlorine water and ammonia water give a red color, changing to brown.

Identity tests for quinine:

(a) One part is soluble in 740 parts of water.

(b) Its solution in diluted sulphuric acid has a blue fluorescence.

(c) Treated with chlorine water, followed by an excess of water of ammonia, gives an emerald green color.

(d) Nitric acid does not redden it.

Identity tests for corrosive sublimate:

(a) One part is soluble in 16 parts of water, 3 parts of ether, and about 14 parts of glycerin.

(b) Has an acrid and persistent metallic taste.

(c) With ammonia water it yields a white precipitate, with an excess of hydrogen sulphide a black one, with potassium iodide a red one soluble in an excess of the reagent, and with silver nitrate test solution a white precipitate insoluble in nitric acid.

Identity tests for calomel:

(a) Insoluble in water, alcohol, and ether, and also in cold dilute acids.

(b) Odorless and tasteless.

(c) In contact with calcium hydrate test solution, or with solutions of alkali hydrates, or with ammonia water, the salt is blackened.

9.

A variety of answers may be obtained to this problem, depending, of course, upon what was understood by the "ounce" stated in the question. If the fluid ounce which the Pharmacopoeia of 1890 says is equivalent to 456.392 grains of water at 15° C is meant, then 2 fluid ounces of water at the same temperature will dissolve 54.65 grains potassium chlorate, 35.65 grains boric acid and 608.52 grains of Epsom salt. In these calculations, the solubilities for the respective substances as given in the 1890 Pharmacopoeia are taken, viz., potassium chlorate 1 in 16.7, boric acid 1 in 25.6, and Epsom salt 1 in 1.5 parts of water. Using the same table of solubilities and taking the ounce as 1 troy ounce of water, or 480 grains, two troy ounces of water will dissolve of potassium chlorate 57.48 grains, boric acid 37.5 grains, and of Epsom salt 640 grains. Taking the ounce to mean avoirdupois, or 437.5 grains, then two avoirdupois ounces will dissolve of potassium chlorate 52.39 grains, boric acid 34.17 grains, and of Epsom salt 583.23 grains.

Admitting the fluid ounce of water at

15° C to weigh 456.69 grains, as stated in the Pharmacopoeia of 1880, and using the solubilities of the respective substances given in the same work, two fluid ounces of distilled water will dissolve of potassium chlorate 55.23 grains, of boric acid 36.45 grains, and of Epsom salt 1,139.22 grains. Using the same table of solubilities and weighing out two troy ounces of distilled water, we find that there are dissolved of potassium chlorate 58.12 grains, boric acid 38.4 grains, and of Epsom salt 1,200 grains. Using the same table of solubilities (Pharmacopoeia 1880) and weighing out two avoirdupois ounces of water, we find there are dissolved of potassium chlorate 53.03 grains, boric acid 35 grains, and of Epsom salt 1,093.75 grains.

Note.—The Pharmacopoeia of 1880 gave the weight of a fluid ounce of distilled water as 455.69 grains, and the solubilities in water of potassium chlorate, boric acid and Epsom salt as 1 part in 16.5, 25, and 9.8 parts of water, respectively. These figures were changed in the Pharmacopoeia of 1890, the weight of a fluid ounce of distilled water being given as 456.392 grains, and the solubilities in water of potassium chlorate, boric acid and Epsom salt as 1 in 16.7, 25.6 and 1.5 parts respectively.

10.

The terms "annual," "biennial" and "perennial" are used in botany to designate the duration of plant life. An annual is a plant whose entire life is limited to a single season. It germinates from the seed in spring, attains its growth, blossoms, bears fruit, and dies in autumn. A biennial is a plant which germinates and vegetates, bearing leaves only, the first season, blossoms, bears fruit and dies the second. Perennial plants have an indefinite duration of life, usually of many years. They may be either herbaceous or woody. Herbaceous perennials, or perennial herbs, are plants whose parts are annual above ground and perennial below. In other words, their roots or subterranean stems live from year to year, sending up annually in the spring flowering shoots, which perish after they have ripened their fruit in autumn. Woody perennials usually vegetate several years, and attain nearly their stature before flowering; thenceforward they fructify annually, resting or sleeping in the winter. Chirata, colocynth, and pennyroyal are annuals; caraway, conium, coriander and digitalis, biennials; and arnica, belladonna, dandelion, and wormwood are perennials.

COMMENTS ON ANSWERS TO SERIES No. 1.

1. In reply to this question many employed the definition for the word evaporation given in some of our standard works on pharmacy. This definition is ordinarily adequate, but it is not sufficiently comprehensive to cover all cases. It states that evaporation is the separation, by means of heat, of the more volatile portion from the less volatile of a liquid. In the case of mixed liquids or solutions of solids, the definition is applicable, but not in the evaporation of simple liquids.

3. Many of the replies disregarded the fact that since January of the present year the new Pharmacopoeia, revision of 1890, has been the official standard. The official system of measures is now the metric, to the exclusion of all others.

4. The replies here have been of a uniformly satisfactory character, save that in a number of instances the writers failed to notice the minus sign before the 10° Reaumur (−10° R).

5. An emulsion is defined as a suspension of an oily or resinous body in an aqueous menstruum through the agency of a mucilaginous substance. Some of the answers submitted do not come within these requirements; thus, a mixture of glycerine and castor oil may afford a palatable method for the administration of the oil, but it is not a true emulsion. Again, it is hardly permissible to enumerate in the ingredients of this emulsion (as many do) such preparations as tincture of opium, paregoric, brandy, rum, whiskey, phosphoric acid, syrup of senega, etc. To be sure, such preparations are frequently prescribed in emulsions for their medicinal effects, but they should never be compounded with an emulsion unless specifically ordered by the prescriber.

7. Fermentation has been the subject of many and widely different theories, and it is not surprising that all kinds of definitions were received, ranging from those of past investigators down to the present time. Indeed, it is true that, even yet, no very satisfactory and comprehensive definition of fermentation and of ferments has been established, though the latest researches are in accord with the statements made in another column.

9. As was to be expected, a great variety of replies to this question were handed in. The solubilities of the salts are differently stated by different authorities, though preference should always be given to the official standard, that of the Pharmacopoeia. In the reply to this question, which is printed on this page, calculations have been based upon the Pharmacopoeias of 1880 and 1890, and upon the fluid, troy, and avoirdupois ounce, and no answers have been marked as incorrect which complied with either of these standards. The answers have emphasized the necessity for a good working acquaintance with common arithmetic, as quite a large proportion of the replies show that the principles of the calculations involved are not well understood.

10. This question almost without exception was satisfactorily answered.

SUCCESSFUL.

The following correctly answered eight or more of the questions in Series No. 1. **11**

- Jas. A. Adams, Waycross, Ga.
- Eugene Abuchon, Grenada, Kas.
- Frank R. Bacon, Sacramento, Cal.
- J. O. Baker, Savannah, Ga.
- Z. M. Ballard, Baltimore, Md.
- F. W. Bangs, St. John, Vermont.
- E. R. Barnes, Gillespie, Ill.
- F. E. Beard, Battle Creek, Mich.
- W. H. Bennett, Brookville, Pa.
- F. C. Berry, Lexington, Va.
- Fred B. Blackmore, Jackson, Mich.
- Maurice R. Blair, Birmingham, Mich.
- Otto Boberg, Eau Claire, Wis.
- Albert Boothby, Lexington, Mass.
- Herbert Boss, Woonsocket, R. I.
- Frank M. Boswell, San Francisco, Cal.
- Ernst J. Bower, Olney, Ill.
- Matt Bradley, Toga, Tex.
- H. K. Brady, Delta, Colo.
- Arthur Branstad, Black River Falls, Wis.
- G. M. Breakey, Alma Centre, Wis.
- Lina Brooks, Waunder, Tex.
- O. H. Brown, Lexington, Ky.
- E. M. Bunnell, Dixon, Ill.
- Sylvester Burks, Lowellville, O.
- Jas. Burns, New Orleans, La.
- N. Busch, Grandavia, N. Y.
- Frank H. Camburn, Hillsboro, Mich.
- Arthur G. Cannon, Hillsboro Bridge, N. C.
- H. R. Carpenter, East Longmeadow, Mass.
- Edwin A. Chase, Brownville, Me.
- L. O. Chelf, Elizabethtown, Ky.
- Elmer M. Clapp, Oshtemo, Mich.
- J. I. Clark, Crater, N. Y.
- J. W. Coffey, Galveston, Tex.
- Clarence Collins, Crisfield, Md.

Dora S. Collins Hart, Mich.
Geo. E. Coman, Natick, Mass.
Frederic P. Cook, Indianapolis, Ind.
Frank A. Cooper, Venetia, Pa.
Frank H. Corceny, Lancaster, Pa.
Carlton W. Crocker, Boston, Mass.
Z. C. Crain, Toledo, O.
J. A. Damon, Hubbardston, Mich.
Dr. Damour, Holokaw, Mo.
Mrs. Fred D'Amour, Denver, Col.
Samuel C. Das, Jackson, Ill.
G. C. Denniston, Burlington, Wis.
J. Delbi, Buffalo, N. Y.
John B. Dixon, Almond, N. Y.
F. W. Dolan, Freeman, Mo.
Emery J. Eastman, Detroit, Mich.
Wynn L. Eddy, Winlock, Wash.
Frank R. Eldred, Ligonier, Ind.
Leon C. Ellis, Lynn, Mass.
W. L. Ferguson, Bolton, Miss.
Emile P. Ferte, Livingston, Mont.
C. C. Fitch, Worden, Ill.
D. P. Flanagan, Craig, Neb.
John A. Foote, Archbald, Pa.
Merrio Friedman, Jersey City, N. J.
Geo. W. Frutchey, Boonton, N. J.
J. R. Funk, Festus, Mo.
Henry E. Gaffney, Boonville, Mo.
B. Frank Gaddard, Lynchburg, Ohio.
Leon Goodacre, Chicago, Ill.
Howard H. Graham, Ashland, Neb.
Henry T. Grant, Taunton, Mass.
John E. Groff, Providence, R. I.
J. F. Grossklaus, Navarre, O.
Wm. H. Hale, St. Johnsburg, Vt.
L. H. Hallock, Sebawing, Mich.
A. Harvey, Winton, Mo.
Frank H. Hawkins, Cleveland, O.
Alfred E. Hankinson, Grove City, Minn.
Henry Helzel, West Superior, Wis.
F. W. Herrick, Winton, Mo.
Herbert W. Hewitt, Milford, Mich.
G. W. Hodges, Hutchinson, Kas.
Herbert C. Holmes, Fort Fairfield, Me.
H. C. Humma, Indianapolis, Ind.
C. H. Hurd, Kenosha, Wis.
B. S. Hutchinson, Ludington, Mich.
C. H. Jongejan, Zealand, Mich.
A. J. Johnson, Galveston, Tex.
Frank A. Johnson, Detroit, Neb.
Jas. Johnson, Vermillion, S. D.
Ed. J. Johnston, Freedom, Pa.
R. H. Killam, Marlanna, Fla.
R. H. Kimball, Hartford, Conn.
John Klason, Chicago, Ill.
C. M. Knowlton, Evansville, Ind.
L. G. Kramer, Chesterport, Ind.
Ed. J. Kretz, Erie, Pa.
Otto R. Kurz, Detroit, Mich.
Claude C. Lake, Eureka, Kas.
W. S. Langhorne, Jr., Portsmouth, Va.
H. A. Larned, St. Marys, Me.
E. S. Lawbaugh, St. Marys, Mo.
L. J. Lermond, Gorham, Me.
J. A. Lindbo, Petersburg, Neb.
Warren Link, Lewisburg, Va.
Y. M. Lotridge, Cincinnati, O.
Chas. W. Lowe, Fall River, Mass.
M. R. Lyons, Fitchburg, Mass.
W. E. Maddux, Spartanburg, S. C.
E. H. Madjesky, Greenwood, Mich.
Jas. H. Marshall, Minneapolis, Minn.
P. A. Martin, Fort Plain, N. Y.
McCray & Co., Prescott, Wis.
J. McKey, Chicago, Ill.
John McLauchlin, Amador City, Cal.
D. J. McNaughton, Whitehall, Wis.
C. A. Miller, Lima, O.
Arthur Mori, Waukegan, Mich.
John G. Motton, Chicago, Ill.
J. R. Mutz, Edinburg, Ind.
Geo. A. Myers, Philadelphia, Pa.
G. J. Myer, St. Louis, Mo.
Walter S. Nicklin, Hamilton, Va.
R. L. Ordman, Plainville, Kas.
J. L. Ormsbee, Springfield, Mo.
Chas. B. Palmes, Geneseo, N. Y.
W. G. Palmer, Ann Arbor, Mich.
Walter B. Partridge, Oswego, N. Y.
H. O. Patterson, Atlantic, Ia.
E. Friedman, Philadelphia, Pa.
F. H. Pittman, Winona, Minn.
A. Poole, Monongah, W. Va.
G. H. Preston, Helena, Mont.
Frank W. R. Reilly, N. Y.
Alfred Rasmussen, Rock Island, Ill.
Alfred J. Regan, Boston Highlands, Mass.
Eugene Regan, Milwaukee, Wis.
Willis G. Rich, Olean, N. Y.
Fred A. Richter, Saginaw, W. S. Mich.
C. C. Saylor, Portland, Or.
Louis G. Scharnikow, New York City.
Karl Schackenberg, Buffalo, N. Y.
John Schoke, Chicago, Ill.
Paul F. Schnurrer, Brooklyn, N. Y.
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J. S. Shafer, Columbus, O.
David Shesgreen, Jr., St. Paul, Minn.
Ernest C. Silco, Walpole, N. H.
V. Simonson, Downer's Grove, Ill.
A. E. Smith, Oley, Pa.
Paul Smith, Philadelphia, Pa.

W. C. Smith, Marble Rock, Ia.
Geo. Spearman, Social Circle, Ga.
Edward G. Stedman, Allegheny, Pa.
Samuel Stout, Philadelphia, Pa.
S. Leslie Thompson, Lewiston, Idaho.
M. Clayton Thrush, Philadelphia, Pa.
W. M. Touner, Randolph, Neb.
David E. Turner, Morristown, Tenn.
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D. E. Walker, Hion, N. Y.
J. Watson, Bradford, R. I.
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Wm. J. Wilkie, New Bransfield, Fla.
Florence M. Wilson, Morrisville, Vt.
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T. Ray Winsing, Greensburg, Pa.
E. Varnold, Washington, D. C.

SERIES NO. 2.

Correct answers to these questions, together with the names of all persons answering correctly eight or more of them, will be published in our April 15th issue.

Replies should reach us not later than April 1st, 1894.

1. In the nomenclature of the Pharmacopoeia how are the titles of substances expressed?
2. What is effervescence? Deliquescence? Name two pharmacopoeial salts which effloresce. Two which are deliquescent.
3. Outline the official process for making syrup of wild cherry. Why is this process used? Upon what constituent does the virtue of this preparation depend? Why is glycerine used in the preparation?
4. Give the official title and the common and maximum doses of Kermes mineral, mercuric chloride, African pepper, tincture of opium, tincture of digitals, tincture cantharides. Which are toxic, and what are the antidotes?

5. Belladonna. Give the botanical name. Common name. Country indigenous to. What part is used? When should it be collected? What is the active principle? What is the dose of the powdered leaves? Of the principal alkaloid? Name the official preparations of belladonna.
6. What do you understand by a poison? An antidote? A dose?
7. Write correctly in Latin, without abbreviation, and state the quantities of each ingredient, a formula to make one pint of an elixir, of which each fluid dram is to contain 1 grain of quinine, 1.100 grain strychnine, and 2 grains phosphate of iron.

8. Write an equation showing the reaction which occurs in the preparation of syrup iodide of iron by the official process. Spirit Mindererus. Hydrated Alumina.

9. What is the difference between a hydrocarbon and a carbohydrate? Give an example of each.

10. What is an essential oil? Name several official ones, and state their properties and dose. How would you detect the addition of alcohol to an essential oil?

SERIES NO. 3.

Correct answers to these questions, together with the names of all persons answering correctly eight or more of them, will be published in our May 1st issue.

Replies should reach us not later than April 15th, 1894.

1. In what proportion must two quantities of powdered opium, containing 13.5 and 16 per cent of morphine respectively be mixed to produce 8 ounces of opium containing 14 per cent of morphine?

2. A quantity of official sulphuric acid

weighs 15 grams. How many cubic centimeters does it measure? A quantity of official nitric acid measures 25 cubic centimeters. How much does it weigh in grams? In grains?

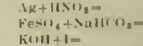
3. How would you distinguish between a root and an underground stem?

4. Which contains the larger percentage of alcohol; a solution made from equal parts by weight of alcohol and water, or one made from equal parts by measure of alcohol and water?

5. What is the percentage of bromine and how many grains of bromine are there in one ounce of potassium bromide?

8. What is an alum, chemically considered? Write the chemical symbols for two alums not containing aluminum. Name the pharmacopoeial and other varieties of alum.

7. Complete the following chemical equations:



8. What is meant by the following prefixes used in the nomenclature of salts: Mono, bi, bin, tri, quadri, di, bis, ter, tetra, super, hyper, per, sesqui, sub, hypo, proto, ortho, meta, pyro, para.

9. What are the chemical differences between red and yellow oxides of mercury? Give the chemical formula for each.

10. Which contains the more quinine (alkaloid), quinine bisulphate or quinine sulphate? Give the percentage of quinine in each salt and exhibit the figures used in your calculations.

SERIES NO. 4.

Correct answers to these questions together with the names of all persons answering correctly eight or more of them, will be published in our May 15th issue.

Replies should reach us not later than May 1st, 1894.

- (1) How would you distinguish between carbolic acid and cresote?

- (2) What is a symbol, also what does a chemical formula represent?

- (3) How would you prove that the specific gravity of iron is 7.50?

- (3) Define stigma, and mention a drug which the pharmacopoeia directs shall consist wholly of stigmas?

- (4) How would you distinguish between galle and tannic acids?

- (5) Name the best excipient for a pill mass with each of the following: Essential oil, potassium permanganate, balsam copaiba, silver nitrate, corrosive sublimate.

- (6) How would you dispense the following prescription?

Ferrous sulphate..... 60 grains.

Potassium carbonate..... 36 grains.

Mix, and divide into 24 pills.

- (7) How many one-eighth grain doses should there be in one-eighth ounce bottle morphine sulphate as found in the market?

- (8) What is an alcohol chemically considered? Name those covered by your definition that are official in the United States Pharmacopoeia.

- (9) How would you prove the air to be a mixture and not a chemical compound?

- (10) What is the difference between benzoin and benzol?

NEW OXIDE OF ARSENIC.—Dr. Retgers believes, as a result of experiments, that there exists an oxide of arsenic of the composition As_2O .

FORMULARY AND QUESTION BOX.

The object of this department is to furnish our subscribers with reliable and tried formulas and to discuss questions relating to practical pharmacy, prescription work, dispensing difficulties, etc.

Requests for information are not acknowledged by mail and ANONYMOUS COMMUNICATIONS RECEIVE NO ATTENTION. TO INSURE ANSWER IN THE NEXT NUMBER, QUERIES SHOULD BE IN OUR HANDS *ten days* prior to the date of issue.

Unanswered Queries.

W. R. Guest, New York; J. Levinson and H. W. Mann, Buffalo; and F. V. Morloch, Baltimore, must send their addresses. The identity of the writer must be disclosed in all requests for information, otherwise no attention will be paid to them. See the rules printed at the head of this department.

6049. Blue for Show Globes.

(G. R. & Co.) See January 15, 1894, issue of the Era, page 64.

6050. Cheiving Gum.

(T. A. W.) See reply to query No. 5969, February 15 Era, page 160.

6051. Collapsible Tubes.

(F. E. B.) Write to A. H. Wirz, manufacturer, 913-917 Cherry st., Philadelphia, Pa.

6052. Head Oil.

(J. B.) In the reply to query 5390, September 1, 1893 Era, page 208, a number of formulas for this preparation are given and the subject otherwise very fully discussed.

6053. Dietary Treatment for Corpulent People.

(J. B. T.) This subject received considerable attention in the Era last year. We refer you to the issue of July 1st, 1893, page 10, and also that of December 15, 1893, page 550.

6054. Amyl Acetate in Gold Sizing.

(C. E. Z.) asks for a formula for gold sizing in which amyl acetate is used as one of the ingredients. Can any one of our readers furnish the information?

6055. Sal Sedativum Hombergii.

(P. Q. B.) This name was given boracic acid by Homberg, who first obtained it in 1702 by heating borax with copperas, and subsequently from borax and sulphuric acid. It retained the appellation until the time of Gay Lussac and Thénard in 1804.

6056. Anhydrous Ammonium Bicarbonate.

(W. E. M.) The sample you send purporting to be ammonium carbonate is anhydrous ammonium bicarbonate. It is not infrequently found upon the market mixed with the commercial article. It occurs in translucent, solid masses, devoid of odor, and is inferior to the official ammonium carbonate. It dissolves slowly in water at ordinary temperatures, giving off carbon dioxide.

6057. Chlorodyne.

(R. E. McC.) Here is a formula presented to the Michigan Pharmaceutical Association in 1892:

Chloroform	2 fl. ounces.
Ether	½ fl. ounce.
Tincture cannabis Indica	2 fl. ounces.
Tincture capsicum.....	1 fl. ounce.
Morphine sulphate.....	18 grains.
Oil peppermint.....	16 minims.
Hydrocyanic acid, dilute	1 fl. ounce.
Glycerine	2 fl. ounces.
Water	1 fl. ounce.
Alcohol, enough to make	16 fl. ounces.

6058. Essence of Pepsin.

(J. L.) Try one of the following:

(1.)	Pepsin	1 dram.
	Simple elixir	10 grams.
	Wine	1 ounce.
	Glycerine	¼ ounce.
	Water, enough to make	4 ounces.

(2.)

Pepsin in scales.....	1 ounce.
Cinnamon water	2 fl. ounces.
Caraway water	4 fl. ounces.
Hydrochloric acid	1 fl. dram.
Elixir calissaya	2 fl. ounces.
Glycerine,	16 fl. ounces.
Distilled water, enough	
to make	4 pints.

See also September 15, 1892 Era, page 173.

6059. Cleaning Bottles Which Have Contained Oils.

(G. R. & C.) Bottles which have contained fixed oils may be cleaned by allowing them to remain for some time in hot water, to which considerable soft soap and concentrated lye have been added. After becoming cool, the bottles should be thoroughly rinsed, at least two or three times, in clean water. Bottles which have contained volatile oils may be treated in the same way, but it is almost impossible to remove entirely the clinging and often disagreeable odors of some of them. Bottles so cleaned are almost entirely unfit for any purpose, unless it be for a like use to which they were first put, or to be used as containers for horse liniments, fatty oils, etc., where the adhering odor would not interfere.

6060. Extract of Lilac.

(C. P. T.) Piesse gives the following:

(1.)	Extract tuberosa	1 pint.
	Extract orange flower.....	¼ pint.
	Oil of bitter almonds.....	3 drops.
	Extract of civet.....	½ ounce.

This can be diluted with cologne spirit, or a mixture of spirit and water to the desired strength. The peculiar odor of lilac flowers is due to a liquid principle called terpineol, which also exists in many of the essential oils. It is obtainable in the market under the name of lilacine. This is probably used in the manufacture of some of the cheaper lilac odors upon the market, either alone or in connection with other ingredients. Here is a formula:

(2.)

Lilacine.....	1 ounce.
Alcohol	1 pint.

A careful search has failed to reveal a formula for the other odor you name.

6061. Tannic's Reagent for Albumen Testing.

(S.S.H.) Jennings' Practical Urine Testing gives the following formula:

Potassium iodide	3.32 grams.
Mercuric chloride	1.35 grams.
Distilled water	64 cc.
Acetic acid	20 cc.

Millard's test for albumen in the urine is given in the work quoted as a mixture of nitric acid, one volume, with a cold saturated solution of magnesium sulphate, five volumes. To use, pour 30 minims of the reagent into a test tube, carefully overlay this with 60 minims of the urine. If albumin is present a white ring forms at the plane of contact of the two fluids. The advantages claimed for this reagent over pure nitric acid are, 1st. It is not corrosive, and does not stain the fingers, or produce a coloration with io-

dides. 2d. Its great density makes the reaction an exceedingly sharp one, so that the test has even greater delicacy than where pure nitric acid is used.

6062. Flavoring Extracts From the Fruit.

(W.) Banana.

Banana fruit (peeled)....	1 pound.
Alcohol	1 pint.
Water	1 pint.

Macerate for 14 days; express and strain.

(2.) Peach.

Bruised peach pits.....	4 drams.
Oil bitter almonds.....	2 drams.
Diluted alcohol	16 ounces.

Macerate 48 hours and filter.

(3.) Pineapple.

Grated pineapple	16 ounces.
Alcohol	6 ounces.

Macerate 48 hours in a covered vessel, and strain, adding enough water through the strainer to make the liquid measure 1 pint.

(4.) Raspberry.

Upon 50 pounds of the fresh and cleaned berries pour 14 gallons of 85 per cent alcohol. Let it stand for 24 hours, then add about 6 gallons of water, and distill off 13 gallons.

(5.) Strawberry.

Bruise ½ pounds of strawberries; pour 3 quarts of alcohol over the mass, let it stand for some time and filter. The product will make about a gallon of the extract. See also reply to query No. 6045 in March 15 Era.

6063. Prescription Difficulty.

(Drugs) has been unsuccessful in making an emulsion from the following prescription:

Paregoric	6 drams.
Castor oil	1 ounce.
Compound tincture car-	
damom	1 ounce.
Aromatic syrup rhubarb.	1 ounce.

The difficulty is due to the large proportion of alcohol present and so little water. So small an amount of the latter is insufficient to completely emulsify the mixture with any of the ordinary emulsifying agents. We suggest he read the remarks and the typical formulas for a similar emulsion given in the department of examination questions in this issue. By omitting the compound tincture of cardamom, and substituting for it one of the aromatic waters and using either of the processes referred to, he will have no difficulty in making a presentable emulsion. Or, in place of an aromatic water, use plain water and flavor with one of the emulsion flavors given on page 40 of the National Formulary.

6064. Bismuth Subgallate.

(H. C. W.) Under the trademarked name "Dermatol" bismuth subgallate was introduced into medicine as a substitute for iodoform. A process for its preparation has been patented, and it is thus described on page 329, vol. 63 Patent Office Gazette. Neutral nitrate of bismuth is dissolved in diluted nitric acid, a solution of gallic acid, alcohol and water added and to the resulting mixture, another addition of caustic alkali or alkali carbonate, until the whole remains but slightly acid. The mixture is then precipitated by means of sodium acetate, or by diluting with water. Another process is described in the National Dispensatory recently issued. In addition to its external employment as a substitute for iodoform, it has been used with some degree of success in the treatment of in-

testinal diseases, especially in profuse diarrhoea caused by catarrhal and ulcerative processes of the mucous membrane. It may be administered in doses of 30 to 50 grains daily, in powders containing 4 to 8 grains each, either alone, mixed with half to 1 grain of powdered opium, or suspended in emulsion to which a few drops of tincture of opium have been added. It is sometimes prescribed in fermentative dyspepsia.

6065. Decolorizing Oil of Rose

(Quercus) has about a pound of oil of rose which has turned brown. When the original container, a two pound can, was opened, the oil was perfectly clear. The container was corked with a rubber stopper. He wants to know how to decolorize the oil. The coloring may be due to an oxidation of the oil, or partially or wholly to the solvent action exerted by the oil upon the rubber stopper, as rubber is soluble to a certain extent in some of the volatile oils. Try, in an experimental way, agitating a small quantity of the oil with a little recently heated animal charcoal. Or experiment with Overbeck's method of freeing volatile oils from coloring matter by simply distilling with an equal quantity of poppy seed oil and a saturated solution of common salt. Oil of rose is found upon the market in nearly all shades of color, from a light yellow to a red. Many experts state that color is no criterion of value, and if this be the case, and the odor of the sample is unimpaired, it is a question whether it would be worth the trouble and loss which would inevitably result from any attempt to decolorize the oil.

6066. Prescription Query.

(Lyccon) asks how the following prescription would behave if it were put up in a hurry and when finished, what does the patient get?

Potassium bicarbonate, 1 dram.
Salicylic acid 1 dram.
Potassium iodide 1 dram.
Tincture colchicum seed 2 drams.
Tincture elmlicifuga..... 3 drams.
Syrup orange peel..... 2½ ounces.
Water, enough to make 4 ounces.

It is not advisable to compound this prescription in a hurry. The potassium bicarbonate should be dissolved in about 1 dram of water, the salicylic acid added and the mixture set aside until effervescence has ceased. The potassium iodide is dissolved in the syrup of orange peel and added to the former mixture. The whole is then transferred to the bottle, the tinctures of colchicum seed and elmlicifuga added, and enough water to make up to 4 ounces. If the mixture were hurriedly put together and bottled at once before effervescence has ceased, an explosion is quite likely to take place, causing the bottle to break, the contents to be lost and the patient to get nothing. The intentions of the prescriber are evidently to prescribe an anti-rheumatic mixture. The first reaction which takes place is the formation of potassium salicylate by the interaction of potassium bicarbonate and salicylic acid. Rather more potassium bicarbonate is prescribed than actually necessary to just neutralize the salicylic acid. There may also occur a reaction between the constituents of the tinctures and the potassium iodide but it would cut but little figure in the present instance.

6067. Venice Blacking.

(Inquisitive.) The following has been given as the formula: To 1 gallon

rectified spirit is added 21 drams blue aniline and 31 drams Hismarck brown aniline; the solution of the last two being effected by agitation for eight to twelve hours. After the solution is completed the mass is allowed to settle, and the liquid portion is drawn off by spigots above the sediment and filtered if necessary. The alcohol is placed in the apparatus first, then the colors, and the mixture agitated every hour for a space of 10 or 15 minutes. Of this liquid 1-4 gallon is added to 1 gallon of rectified spirit, and in this are dissolved 11 ounces of camphor, 16 ozs. Venice turpentine, 36 oza. shellac. To 1 qt. benzine add 3 1-2 fluid ounces castor oil and 1 3-5 fluid ounces boiled linseed oil. The two solutions are then united by agitation, but should not be allowed over two days in any vessel of iron or zinc, as in the presence of the guma the colors will be decomposed by contact with zinc in eight days, and with iron in eighteen to twenty-four days.

In addition to the preceding we give another formula which has been brought forward as producing a similar blacking:

Shellac 50 grains.
Venice turpentine 40 grains.
Solid blue black "B" 15 grains.

In a mixture of

Alcohol 2 fl. ounces.
Gasoline 6 fl. drams.

6068. Color Change in Elixir Pepsin, Bismuth and Strychnine.

(Quercus) asks what causes elixir of pepsin, bismuth and strychnine to become black and how it may be clarified? Elixir of pepsin, bismuth and strychnine is very susceptible to change, and we suspect that the turbidity noticed is due to the loss of ammonia necessary to hold the bismuth in solution. This elixir should be, at all times, strictly neutral. The salt of bismuth used in its preparation is the ammonio-citrate, and it is soluble in water only so long as it preserves its alkalinity. This is accomplished by means of ammonia water. When this evaporates, or when the preparation is acidulated, the bismuth is thrown down. Now, a word as to the formula in general. It is a fact that pepsin cannot be combined in alkaline mixtures without becoming inert, and should only be used in acid mixtures; hence, it is a question if the therapeutical value is not sacrificed, for the so-called clear and elegant preparations. The only suggestion we can make is for you to follow the formula given in the National Formulary as closely as possible, keeping the reaction as nearly neutral as possible, carefully avoiding an excess of ammonia. By reading over the formula in the National Formulary and carefully following it in outline you will readily see the application of these remarks, and we predict that you will have no trouble in making a presentable preparation out of a rather incompact one. It is only necessary to remark that the elixir may sometimes be cleared up by the addition of a few drops of ammonia.

6069. Jewelers' Falls.

(F. E. Y.) These are made of copper tin, silver, or combinations of two of them and colored. They are used at the back of transparent gems, especially artificial stones to brighten the brilliancy and luster. Some kinds of foil are made by rolling sheet metal to the requisite thickness, others by forming a solid cylinder of the metal and then slicing off a

film while the cylinder rotates. Jewelers' falls are further prepared by coloring, varnishing and polishing. If the color of the stone requires modifying, a foil of lighter or darker color is used. The white foil is colored in the following manner.

Blue.—Turnbull's blue is rubbed up with very pale, quick drying oil, until the desired shade is obtained. This blue is used to impart a darker color to sapphires.

Green.—Dissolve shellac in alcohol, and add sufficient verobaris to the solution to produce the desired tint.

Red.—A solution of carmine in ammonia or lacquer, or carmine rubbed up with isinglass, may be used. The tint in either case, can be modified by mixing, and the luster augmented after the color has been applied by lacquering.

Yellow.—Solution of mastic and turmeric in alcohol, or a solution of saffron and isinglass may be used.

For imitation diamonds, cover the inside of the socket in which the stone or paste is to be set with tin foil, using a little stiff gum or size. When dry polish the surface, heat the socket, fill it with warm quicksilver, let it rest for 2 or 3 minutes, pour it out, and gently fit it in the stone. Lastly, well close the work around the stone, to prevent the alloy being shaken out. Or, coat the bottom of the stone with a film of real silver by precipitating it from a solution of the nitrate in spirits of ammonia by means of the oils of cassia and cloves. Both of these methods are used to increase the brilliancy of real and fictitious gems.

6070. Luminous Paints.

(H. W. G.)

The following are some recipes for the preparation of luminous paints:

For orange luminous paint, 46 parts varnish are mixed with 17.5 parts prepared barium sulphate, 1 part prepared India yellow, 1.5 parts prepared madder lake, and 38 parts luminous calcium sulphide.

For yellow luminous paint, 48 parts varnish are mixed with 10 parts prepared barium sulphate, 8 parts barium chromate, and 34 parts luminous calcium sulphide.

For green luminous paint, 48 parts varnish are mixed with 10 parts prepared barium sulphate, 8 parts chromium oxide-green, and 34 parts luminous calcium sulphide.

A blue luminous paint is prepared from 42 parts varnish, 10.2 parts prepared barium sulphate, 6.4 parts parts ultramarine blue, 5.4 parts cobalt blue, and 46 parts luminous calcium sulphide.

A violet luminous paint is made from 42 parts varnish, 10.2 parts prepared barium sulphate, 2.3 parts ultramarine violet, 9 parts cobalt arsenate, and 36 parts luminous calcium sulphide.

For gray luminous paint, 45 parts of the varnish are mixed with 6 parts prepared barium sulphate, 6 parts prepared calcium carbonate, 0.5 part ultramarine blue, 6.5 parts gray zinc sulphide.

A yellowish-brown luminous paint is obtained from 48 parts varnish, 10 parts precipitated barium sulphate, 8 parts auripigment, and 34 parts luminous calcium sulphide.

Luminous colors for artists' use are prepared by using pure East India poppy oil, in the same quantity, instead of the varnish, and taking particular pains to grind the materials as fine as possible.

For luminous oil color paints, equal quantities of pure linseed oil are used in the place of the varnish. The linseed oil must be cold pressed and thickened by heat.

All the above luminous paints can be used in the manufacture of colored papers, etc., if the varnish is altogether omitted, and the dry mixtures are ground to a paste with water.

The luminous paints can also be used as wax colors for painting on glass and similar objects, by adding, instead of the varnish, 10 per cent more of Japanese wax and one-fourth the quantity of the latter of olive oil. The wax colors prepared in this way may also be used for painting upon porcelain, and are then carefully burned without access of air. Paintings of this kind can also be treated with water glass.

See also Era of December 15, 1893, page 573.

6071. Syrup White Pine Compound.

- Balm Gilead buds..... 5½ ounces.
- Spikenard 5½ ounces.
- Blood root 5½ ounces.
- White pine 20 ounces.
- Wild cherry 49 ounces.
- Ipecac 4 ounces.
- Acetate morphine 2 drams.
- Alcohol, 1 part.....
- Water, 2 parts..... q. s.

Reduce the drugs to coarse powder, macerate 12 hours, using quantity sufficient of the menstruum to percolate to 24 pints. In this dissolve 24 pounds sugar by percolation and ½ gallon confectioner's glucose. Dissolve the morphine in 8 ounces of water and add sufficient acetic acid to remove turbidity. Mix with syrup, add the chloroform and agitate well. Add lastly enough simple syrup to make 40 pints.

If a combination with tar is thought desirable, ½ ounce of glycerite of tar, N. F., can be added to each pint.

A similar syrup may be made by first preparing a tincture of white pine, as follows:

- White pine turpentine (gum thus) 2 av. ounces.
- Alcohol 14 fl. ounces.

Cut the gum in small pieces and dissolve in the alcohol by the aid of a water bath, or by macerating for two weeks in a warm place.

Compound Syrup of White Pine.

- Sulphate of morphine... 5 grains.
- Fluid extract of Ipecac. ½ fl. ounce.
- Chloroform 1 fl. dram.
- Tincture white pine..... 2 fl. ounces.
- Carbonate magnesium . . ½ av. ounce.
- Water 8 fl. ounces.
- Sugar 14 av. ounces.

Rub the carbonate of magnesium with 1 ounce of sugar to a fine powder in a mortar, and add to it the tincture of white pine, rubbing them thoroughly together, then add the fluid extract, gradually rub the water with the mixture, and filter; mix the chloroform with the sugar in a bottle, dissolve the morphine in the liquid, then mix the liquid with the sugar in the bottle and dissolve by agitation.

Here is a formula first published in 1884, in the Proceedings of the Illinois Pharmaceutical Association under the title "White Pine Expectoant":

- White pine bark 1 ounce.
- Wild cherry bark 1 ounce.
- Balm Gilead buds..... 1 dram.
- Blood root 1 dram.
- Sassafras 1 dram.
- Chloroform 1 dram.

- Alcohol 4 ounces.
- Water 4 ounces.
- Dextrin syrup 8 ounces.

Exhaust the drugs with alcohol and water in equal proportion, by percolation, until 8 ounces are obtained. To this add the dextrin syrup and chloroform and mix thoroughly.

6072. Flavoring Leaf Tobacco.

(1.)

Moisten 50 parts of Virginia leaf before cutting with the following mixture: Dissolve 2 parts of sugar in 24 parts of water and add 1-10 part of cinnamon wine, 1-20 part extract of mastic and 2 parts of juniper wine. The tobacco, after moistening, is pressed into a barrel, remaining there 24 hours, when it is cut and packed.

(2.)

Moisten 100 parts of Virginia leaf with the following mixture, obtained by boiling for 3 hours: Raisins, 3 parts; bay-leaves ½ part, and pulverized cascarrilla ¼ part in water 80 parts. Let the decoction cool and strain the liquor through a linen cloth, and then add 4 parts of cinnamon wine and 1½ parts of sugar. The tobacco, after moistening, is dried and cut.

(3.)

Pulverize dried plums 20 parts, tamarinds 15 parts, cassia bark 5 parts, figs 10 parts and juniper berries 30 parts. Macerate in 225 parts of water for 24 hours and add to the resulting liquor: juice of Spanish licorice 30 parts, molasses 20 parts, honey and saltpeter each 10 parts. A sufficient quantity to flavor 500 parts of ordinary American leaf tobacco.

(4.)

The Techno-Chemical Receipt Book gives this for flavoring Porto Rico leaf: Boil in a covered boiler for 3 hours best wine vinegar 12 parts, water 90 parts, honey 1 part, large raisins 3 parts and bay leaves ¼ part. Filter the liquor and, when cooled to milkwarm, treat with it 100 parts of Porto Rico leaf.

(5.)

Sweet Tobacco, English Process: Remove the lower thick stems from 100 parts of Virginia leaf, moisten with 60 parts of water, cut fine and kiln-dry. In the meanwhile boil the following ingredients in 10 parts of water: Sugar 3 parts, raisins 2 parts and cascarrilla bark ¼ part. Strain the liquor when about milk-warm through a linen cloth, and when it is entirely cold add 1 part extract of mastic and ½ part of cinnamon wine. Moisten the tobacco with this mixture and then pack in paper or linen bags.

(6.)

Sweet-scented Tobacco. For 100 pounds ordinary tobacco: Comminute 4 pounds of dried prunes, 2 pounds each of orange peel and rosewood, 1 pound of coriander seed and 2 pounds of raisins; pour over them 8¾ ounces of purified potash and let the whole stand 24 hours; then heat it nearly to the boiling point, draw off the liquor and press out the residue; dissolve in the liquor 2 pounds of purified saltpeter, 4 pounds each of common salt and honey. Pour 40 pounds of this mixture over 100 pounds of the prepared tobacco.

(7.)

Here are two processes for improving the flavor of inferior qualities of tobacco: For 100 pounds comminute cassia bark, orris root, licorice root, angelica root and rosewood each 7 ounces. Macerate with 4 gallons of water, press out the

liquor and compound it with a solution of 2 pounds of pure saltpeter and 3¼ pounds of white sugar in 1½ gallons of water.

(8.)

Fresh lemon peel and fresh orange peel of each 8¾ ounces, cubeb 3½ ounces, calamus root and coriander seed each 7 ounces, and figs 1¼ pounds; macerate 24 hours in 4 gallons soft water, strain off the liquor and dissolve in it 2 pounds of sugar syrup and 1¼ pounds of pure saltpeter.

See also Era Formulary, page 415.

6073. Liquid Fire Extinguisher.

(J. H.) Here are several formulas:

(1.)

Make the following solutions: 1. Ammonium chloride, 200 parts; water, 20,000 parts. 2. Alum calcined and pulverized, 350 parts; water, 10,000 parts. 3. Ammonium sulphate, in powder, 3,000 parts; water, 500 parts. 4. Sodium carbonate, 350 parts; water, 4,000 parts. 5. Sodium carbonate, 350 parts; water, 5,000 parts. 6. Liquid water-glass, 4,500 parts. Mix the solutions in the order named, and to the mixture add 20,000 parts of water.

(2.)

Crude calcium chloride 20 parts, salt 5 parts, dissolved in water 75 parts. Keep at hand and apply with a hand pump.

(3.)

Solution for Hand Grenades: Fill thin, spherical bottles of blue glass with a solution of calcium chloride, sal ammoniac or borax.

(4.)

The "hand grenade" known as Hayward's is said to be charged with a solution containing calcium chloride, 18.4; magnesium chloride, 5.7; sodium chloride, 1.3; potassium bromide, 2.2; barium chloride, 0.5; and water, 72.2 parts. Whether the solution is made by dissolving the separate salts, procured as such, in water or whether some liquid waste product of some chemical factory is made the basis of it is not stated. Another is said to be composed of ground marble, sulphuric acid and water. The acid and water are mixed in the proportion of two parts of acid to six parts of water, are put in the bottles and then about 8 ounces of ground marble to each pint of the liquid put in and the bottles instantly corked and tied down; when thrown into a fire the bottles are broken or burst by the heat, liberating the carbonic acid and thus extinguishing the fire.

(5.)

A good fire extinguisher that may be conveniently kept in ordinary one-headed barrels around buildings is prepared as follows: Sixty pounds salt, 30 pounds alum and 10 pounds sal-soda are dissolved in 13 gallons of water. This preparation acts by generating carbonic acid gas and by forming a non-fusible crust over the burning timbers as soon as it is thrown into the fire. In preparing the solution all materials used should be pulverized and the water should not be above lukewarm. By heating the mixture to hasten the solution a considerable part of its fire-extinguishing properties would be lost. Sulphate of ammonia is also an excellent fire extinguisher, because it will melt at a low degree of heat and produce a crust over the burning materials. At higher temperatures it will be decomposed and give off vapors of superior fire-extinguishing properties. It is advisable to also have handy any substance that may be used to choke

the fire. A material far better adapted than water to smother an incipient fire is ordinary sand. For instance, if oily waste or other material saturated with oil should catch fire, a few handfuls of sand will do more to extinguish the fire than several pails full of water. Another advantage of sand is that it will do no damage itself like water to materials it is thrown upon. It is necessary to often change the water kept in barrels for fire extinguishing, this is avoided by using sand instead.

(6.) The Techno-Chemical Receipt Book gives the following formula for "cart-ridges" for extinguishing fire: Make the shells of parchment paper or sheet lead and fill them with 4 parts of a snit obtained by mixing 343 parts of sulphate of aluminum and 142 parts of sodium sulphate with 432 of water, and 1 part of sodium sulphide, separated from the 4 parts of the snit by a disk of parchment paper. The cartridge is broken and its entire contents are poured into the water to be used for extinguishing the fire.

FORMULAS.

6074. Compound Syrup of Tar.

Am. Drug.

Fluid extract of licorice. 2 ounces.
Tincture opium camphorated 2 ounces.
Syrup ipecac 2 ounces.
Glycerite tar, N. F. ½ ounce.
Syrup tolu, enough to make 1 pint.

By using one-half the quantity of liquid extract of licorice a much nicer preparation can be obtained.

6075. Syrup Wild Cherry Compound.

Am. Drug.

Wild cherry 16 ounces.
Spikenard 4 ounces.
Ipecac 3 ounces.
Bloodroot 1 ounce.
Tincture opium 4 ounces.
Alcohol, 1 part
Water, 2 parts q. s.

Macerate 12 hours and then percolate to 5 pints. Add the tincture opium and filter; then dissolve 6 pounds sugar in filtrate by percolation and add enough simple syrup or glycerine to make 1 gallon. Tar can be added, if desired, as in the preceding formula.

6076. Compound Aromatic Syrup of Senna.

Griffith's Formulary.

Alexandria senna 4 troy ounces.
Jalap ½ troy ounces.
Rhubarb ½ troy ounce.
Cinnamon 1 dram.
Cloves 1 dram.
Nutmeg 30 grains.
Oil lemon 20 minims.
Sugar 24 troy ounces.

Reduce the crude drugs to a number 50 powder and percolate with diluted alcohol until the powdered drugs are exhausted. Evaporate by means of a water bath to 15 fluid ounces, filter, dissolve the sugar, and add the oil.

Dose, 2 to 4 fluid drams.

6077. Compound Wine of Cinchona.

French Codex.

Yellow cinchona 10 parts.
Bitter orange peel 1 part.
Chamomile 1 part.
Alcohol 10 parts.
Stronger white wine 90 parts.

Bruse the crude drugs and macerate in the alcohol and wine ten days. Filter. Dose, a tablespoonful.

6078. Coughs in Children.

Wine antimony 3 minims.
Syrup squilla 5 minims.
Syrup ipecac 5 minims.
Morphine sulphate 1-64 grain.
Brown mixture, enough to make 1 fl. dram.
Give every two hours.

6079. Cod Liver Oil (Predigested) With Malt Extract.

Ch. & Dr.

Cod liver oil 150 parts.
Water 50 parts.
Scale pancreatin (soluble) 1 part.
Sodium chloride 2 parts.
Sodium bicarbonate 2 parts.

Dissolve the pancreatin along with the salines in the water, digest at a temperature of about 90° F. for three hours, stirring occasionally. Put 200 parts of any good commercial extract of malt in a mortar, add the pancreatized oil gradually, and flavor with oil of pimento, quantity sufficient.

6080. Palmer's Compound Tonic of Saffron.

A. P. A.

Senna leaves 1 ounce.
Manna 1 ounce.
Colocynth ½ ounce.
Saffron 2 drams.
Powdered opium 10 grains.
Boiling water 12 ounces.
Infuse until cold and add:
Tincture of aloes and myrrh 8 ounces.
Makes 1 pint.

6081. Coughs in Children. Stimulant Expectorant.

Ammonium chloride 3 grains.
Syrup senega 5 minims.
Syrup wild cherry ½ fl. dram.
Brown mixture ½ fl. dram.
Give every three hours.

6082. Cough Mixture.

Essence anise 1 dram.
Aromatic sulphuric acid. 3 drams.
Glycerine 1 ounce.
Wine ipecac 1 ounce.
Oxymel of squills. 2 ounces.
Camphor water, enough to make 8 ounces.

6083. Cough Sedative Without Opium.

Potassium bromide 1 ounce.
Tincture bloodroot. 3 fl. drams.
Tincture hyoscyamus. 2 fl. ounces.
Ether ½ fl. ounce.
Syrup ipecac 2 fl. ounces.
Syrup tolu 7 fl. ounces.
Alcohol 1 fl. ounce.
Water 3 fl. ounces.

Dissolve the bromide of potassium in the water and mix the solution with the syrups. Mix the alcohol with the ether and tinctures and add to the other solution.

6084. Fumigating Pastilles.

Beral.

Benzoin 10 parts.
Charcoal 24 parts.
Potassium nitrate 1 part.
Sassafras 2 parts.
Muclage of acacia, a sufficient quantity.

Make conical pastilles.

6085. Butter of Cacao Mixture.

Cadet.

Butter of cacao 3 ounces.
Oil of almonds. 13 ounces.
Syrup of red popples. 1 ounce.
Orange flower water. 4 drams.

In teaspoonful doses as a soothing demulcent in catarrh.

6086. Tincture Caulophyllum Compound (Blue Cohosh Compound.) Amer. Dispensatory.

Blue cohosh 2 ounces.
Ergot 1 ounce.
Water pepper (smartweed) 1 ounce.
Oil savin 30 minims.
Alcohol, enough to make 24 ounces.
Macerate or percolate.
An emmenagogue given in 15 to 60 min-
im doses.

6087. Whoop Tonic Bitters.

Fluid extract whoop. 1 fl. ounce.
Fluid extract calamus. ½ fl. ounce.
Tincture cinnamon 1 ounce.
Tincture cardamom ½ fl. ounce.
Compound spirit orange (N. F.) 1 fl. dram.
Whiskey 3 pints.
Water 12 ounces.
Glycerine 4 ounces.
Mix and allow to stand for several days, then filter. Dose, one-half to one wineglassful.

6088. Lotion for Burns.

Benzoin 6 drams
Storax 4 drams.
Balsam tolu 2 drams.
Aloes 1 dram.
Alcohol 5 fl. ounces.
Make a tincture, to be used as a lotion for burns and scalds, before vesication has taken place.

6089. Burns in Children. Nouveaux Remedes.

Lime water 1½ ounces.
Oil sweet almonds. 1½ ounces.
Thymol 1 to 2 grains.

6090. Burns in Children. Nouveaux Remedes.

Bismuth subnitrate. ½ dram.
Boric acid 1 dram.
Lanolin 2 drams.
Olive oil ½ ounce.

6091. Ointment for Chilblains.

Zinc oxide ½ dram.
Lead acetate 1 dram.
Glycerine 1 dram.
Prepared lard 4 ounces.
Perfume, as desired.
Triturate the zinc oxide and lead acetate with the glycerine, add the lard and finally the perfume.

6092. Ointment for Chilblains.

Camphor 1 dram.
Oil turpentine 2 drams.
Olive oil 4 drams.
Ointment of nitrate of mercury 1 ounce.

Dr. Kerez, of Rome, announces that there is no danger in becoming infected with tuberculosis from smoking cigars made by people who are afflicted with that disease. Even should such cigars become filled with these disease germs, their infective qualities are destroyed after a period of ten days or two weeks.

Comparison of the capabilities of the hop-raising districts of Oregon and Washington with those of European countries, shows that land in the Puyallup Valley, Washington, will, upon an average, produce 1,700 pounds per acre, while the most favored hop-producing sections of England and Germany hardly furnish a yield of 600 pounds per acre. It is estimated that it costs twenty cents per pound to grow and cure hops in England; those grown in the state of New York cost the producer about thirteen cents per pound, while estimates from the Pacific coast show that hops can be grown there at a cost of about nine cents per pound.

NEWS COMMENT.

In Muncie, Ind., a "veteran cab driver" has opened a drug store.

Sulphuric acid was dispensed instead of a face lotion by a clerk in a Halifax drug store.

Mount's drug store at Monett, Mo., is now in charge of A. C. Smith, who comes from Canton, O.

Eight complaints for illegal liquor selling have been lodged against a druggist in Hoagland, Ind.

The Sandusky, O., Druggists' Association has elected Chas. A. Lehrer, president, and Adam Gerlach, secretary.

The inventor of ice cream was one Jackson, a negro, in Philadelphia, who accumulated a fortune in the business.

A druggist in Belle Plaine, Ia., is charged with administering narcotics to a woman for the purpose of debauching her.

Mrs. Lucy H. Collar has instituted suits for damages against four druggists of Cedar Rapids, Ia., for selling liquor to her husband.

Mrs. Mary Eccles, who conducts a drug store in Brooklyn, N. Y., objects to the opening of a saloon on the opposite side of the street.

Wm. Schmidt has withdrawn from the Indianapolis wholesale drug firm of A. Kiefer & Co., which now becomes the A. Kiefer Drug Co.

The postmaster and his mother at Chatham, N. Y., have been heavily fined for selling liquor in their drug store, where the postoffice is.

Two druggists and a dentist in McKeesport, Pa., were arrested and fined for forcibly detaining a young girl in a room over the drug store.

The Erie Chemical Co., at Erie, Pa., is a new and large concern which will manufacture heavy chemicals, especially chloride of lime.

A patent medicine vender was fined under a city ordinance at Omaha for distributing advertising matter without a license. On appeal the decision of the Police Court was reversed, the judges holding that the ordinance infringes on a man's constitutional liberty.

Harry A. Robinson, a drug clerk employed by Nelson Barrowclough, a Rochester, N. Y., druggist, is charged with selling drugs without a license from the State Board of Pharmacy. It is said he bought a certificate from a druggist at Avon and had his name inserted over the old one.

Frederick Uhlmann, a druggist, of Passaic, N. J., had a miraculous escape from death at the Erie station a few evenings since. An express train, running at the rate of about thirty-five miles an hour, struck him and turned him over and over several times. He was not injured. One of his shoes was torn from his foot by the pilot of the engine, but his spectacles, which rested on his nose, were not disturbed during his somersaults.

JOIN THE A. P. A.

What are the aims of this association and what are the advantages of membership in it? The purpose of the association is to unite the educated and reputable pharmacists and druggists of America in the following objects:

1. To improve and regulate the drug market, by preventing the importation of inferior, adulterated, or deteriorated drugs, and by detecting and exposing home adulteration.

2. To encourage proper relations between druggists, pharmacists, physicians, and the people at large, which shall promote the public welfare, and tend to mutual strength and advantage.

3. To improve the science and art of pharmacy by diffusing scientific knowledge among apothecaries and druggists, fostering pharmaceutical literature, developing talent, stimulating discovery and invention, and encouraging home production and manufacture in the several departments of the drug business.

4. To regulate the system of apprenticeship and employment, so as to prevent, as far as practicable, the evils flowing from deficient training in the responsible duties of preparing, dispensing, and selling medicines.

5. To suppress empiricism, and to restrict the dispensing and sale of medicines to regularly educated druggists and apothecaries.

6. To uphold standards of authority in the education, theory and practice of pharmacy.

7. To create and maintain a standard of professional honesty equal to the amount of our professional knowledge, with a view to the highest good and greatest protection to the public.

Every pharmacist of good moral and professional standing is eligible to membership.

The annual dues are \$5 and every member in good standing is entitled annually to the proceedings of the annual meeting, including the various papers read and discussed, and also the report on the progress of pharmacy, which latter is a thorough digest of every thought and labor in the pharmaceutical world. This volume is alone worth the amount of the annual contribution and in the course of years becomes a most important part of the pharmacist's library. This year the association will meet during the month of September at that most delightful mountain resort, Asheville, North Carolina, so well and favorably known to all tourists. It is hoped that a large attendance of new members will be present. The special committee on membership solicits your application. See p. 166, February 15 Era.

A young man in Chicago was advised to get some leeches for his swollen face. He bought and swallowed two. No ill effects.

The Dake Drug Co., cutters in Rochester, N. Y., is publishing piteous walls in the newspapers, soliciting the public's patronage.



GEORGE SPEARMAN.

Mr. Spearman, whose portrait is given above, stood highest in the rating of replies to Series No. 1 of the Examination Questions published in the Pharmaceutical Era in the issue of February 1. He came within one point of the total valuation put upon the questions, a result most satisfactory to the editor as well as to him.

Mr. Spearman is a native of Georgia, his birth occurring in Jasper County, July 29, 1868. He received his education in the Oak Grove High School at Social Circle, Ga., and in 1890 entered the employ of the retail drug firm of Gibbs & Spence, of that town, with whom he has since remained. The Georgia Board of Pharmacy granted him a pharmacist's license on May 2, 1892, he being one of the two who out of a class of eighteen, were successful in passing the examination. Mr. Spearman is a member of the Georgia Pharmaceutical Association and takes much interest in pharmaceutical matters generally. We congratulate him upon his good record thus far and wish him a continuation of like satisfactory progress.

A Chinaman wanted sarsaparilla root, and inquired of Druggist Cody, of Merced, Cal., for "Sises brother Ruth."

The Wyeth Chemical Co., Rochester, N. Y., will move into the new Moulson building, Lake avenue and White street. Geo. C. Rogers, for a number of years a clerk in Cleveland, has entered the employ of this house.

Hartz & Bahnsen Co., of Rock Island, Ill., are building up a large wholesale drug business. Their splendid new building is perfectly adapted to the needs of such an enterprise, and architecturally is a great credit to the city.

Irwin, Kirkland & Co., manufacturing pharmacists, Decatur, Ill., have recently added several salesmen to their traveling force and are making extensive improvements in their laboratory. They expect to increase their laboratory force and devote special attention to the manufacture and advertising of several of their remedies.

A MODEL DRUG STORE.

The Kulsh Pharmacy, Fourth avenue, corner of 23d st., New York, is large and commodious in its proportions, being entirely square, admitting of a symmetrical arrangement of the different departments that could not well be improved upon. The fixtures are of mahogany, from original designs made expressly for the purpose, and the designer has succeeded in combining both simplicity and elegance. They are entirely handwork, somewhat different in arrangement from the ordinary pharmacies, there being no shelf or drug bottles in the store proper, or the regulation drug drawers. These articles are relegated to the prescription or dispensing room, which is entirely separate from the store proper, although easy of access, being at one end of the store partitioned off by the fixtures, entrance being through a curtained doorway. The cases are of plate-glass, made to exhibit toilet articles and the specialties of the firm's make, which are quite numerous. Another unique feature is the absence of counters, with the exception of the soda counter. This brings the clerks in direct contact with the customers and enables them to move around freely and exhibit the goods in the different cases. The fixtures might be called one entire showcase, extending on all sides of the store. All the case doors are fitted with beveled plate-glass, the upper part of the fixtures being fitted with sliding doors, while the lower half has drop doors, the inside of the cases being finished with plush to show off the small articles and fine goods. Below these cases are large drawers to contain brushes and fancy articles. The fixtures are mounted with metal trimmings in gold relief, which brings out the fine quality of the woodwork to perfection. In the center of the store, built around a large pillar, which is enclosed in wood trimmings to match the fixtures, is a handsome cashier's desk, surmounted by a tastily designed brass railing; and the cashier, to grace this fairy cage, as it might be called, has been selected to harmonize with the rest of the beautiful surroundings. The soda counter is of four kinds of marble. The three silver fountains were built by Lippincott & Co., of Philadelphia, Pa., from original designs, and are, they claim, the handsomest of the kind ever made. The one on the center of the counter is the larger, and is surmounted by five electric lights, and the smaller two by three each. The soda water department is laid out for a large business, and is one of the most complete in the city. Back of the counter is a dumb-walter, running down to the syrup room in the basement, to carry up supplies to the fountain, syrup, ice, etc. In one corner of the store is the office, from which an entire view of the store can be had, the partition being of beveled plate-glass. The prescription department takes up about a third of the store, and contains a large window, which gives ample light. All the crude and powdered drugs, as well as chemicals, are in this department, and in cans, neatly painted, are used in place of the usual wooden drawers. The dispensing counter is on one side of this room, and is complete in all its details for a large prescription business. A large stock from all the leading makes has been laid in, and the store is fully equipped in all departments. A small room back of the dispensing room is used for putting the finishing touches on the

firm's specialties made in the laboratory. The night clerk has not been forgotten, and is unusually well provided for in a room partitioned off the dispensing room. The beautiful ceiling of the store is a work of art. It is done in oil and gold, and inlaid with twelve colors, with side walls to match. It is a representation of looped ribbons, with a narrow molding that is laid in colors, which give a beautiful effect when the store is lighted. The background is painted to represent a buff mat. The floor is of the latest pattern, mosaic tile. The gas fixtures are also of special design, and are for both gas and electric lights. The laboratory is situated in the basement, a large, light well-ventilated room, 50x75 feet, divided into three departments, a syrup-room, filled with steam-jacketed kettles and boiling pans, fruit crushers, etc., for the manufacture of soda syrups; a general manufacturing laboratory and a technical laboratory, where all kinds of analyses will be made for the public and the medical profession. The laboratories are in charge of Dr. Leo Eggers, Ph. D. and magister in pharmacy, of Vienna, and for some time a chemist in Tromsdorff's laboratory, Germany. Hot water is supplied to all parts of the store, a necessary requisition behind the soda fountain, as well as in the dispensing room. A large ice box has been built between the laboratory and syrup-room, and arranged so that a corner can be used by the chemist to keep cool such articles as he wishes, while the large part will be used for store purposes to keep fruit juices, syrups, cream, etc. Arranged by shelves is a department to keep ointments, cold creams and toilet preparations that are affected by heat. The store is in one of the best locations of the city, and will without doubt amply repay its proprietors for the liberal amount of money expended by them in its equipment. The Kulsh Pharmacy is incorporated, and is under the direct supervision of Mr. Oscar Kalish, the former manager of R. Hudnut's Pharmacy, Broadway.

PROGRESS OF THE INTER-STATE LEAGUE.

The league has made a wonderful progress within the past six months, and particularly since our last meeting in New York City in February. Associations have been formed in Norwich, Conn., Manchester, N. H., Portland, Me., Boston, Brocton, Cambridge, Somerville, Lynn, Salem, Lowell, and Worcester in the state, including the city of Worcester, Springfield, Pittsfield, Lawrence and Haverhill, all in Massachusetts. The members of the branches of the league on the east have formed a new society, the New England Druggists' Union, composed of the presidents, vice-presidents and secretaries of all the eastern branches of the league. The object of this union being to make a thorough and complete canvass of each county in each state, to organize county associations, to induce manufacturers to place their goods on sale subject to the league's contract plan. This committee is also to take charge of soliciting contributions of cash from such manufacturers, thereby taking advantage of such offers as have been made by R. V. Pierce, Fairchild Bros. & Foster, and others. To complete this work it requires capital, and this is the proper way to get at it, as the manufacturers have expressed their willingness to assist the work financially. Some of our league members were informed that a prominent New York City manufacturer that if the league would organize on a strict business principle, with a capital sufficient to amount of \$50,000, he would readily be done by the druggists organizing their respective counties. For in-

stance, 50 or 100 counties organize and each one endeavor to solicit subscriptions amounting to \$500 to \$1,000. We could readily raise the \$50,000 required, when all the counties of every county in named firms and many others which are friendly to the league, our association would be placed on such a basis as to carry out its objects in every county in the United States. These association committees could each agree to take charge of two or more counties, thereby hastening and making it more nearly complete. This plan is certainly a feasible one and Mr. A. O. Hull, of Central Falls, Rhode Island, president of the Mortar and Pestle Club, has taken the initiative in this plan, and has named the secretary that he has obtained donations of \$25 of each and every wholesaler in his locality, and other members of the league are reporting similar progress. The Boston association has taken up the same plan, and have promises of liberal donations, and the future of the league work in the country is bright. All the eastern branches have promised to be represented at our next annual meeting in May. The date and place for this meeting has not yet been decided, but the executive committee desires holding it at some point easily accessible, to have the largest representation the league has ever had. From the present outlook it can safely predict a good attendance. President Canning desires to see the northwest and south again wake up to former enthusiasm and adopt the work of the league. The new secretary has been distributing the organization blanks very thoroughly in the section allotted to himself, namely, the southern states. Mr. J. M. Eaton, of St. Louis, will cheerfully supply the west with any matters concerning the league, while President Canning has been doing the same in the north. I desire to impress upon every locality the importance of local associations, whether the cut rate evil exists in their locality or not. To make this grand league a success we must have every city, town and county in the states organized, and this can be done upon the same plan that our eastern friends are working on. If the druggists throughout the country will come to our assistance and help us carry on this great work, I will cheerfully supply any drugline with the best of the drugs necessary for organizing, and I trust they will not hesitate in calling on any of the league officers, who will willingly and their all very respectfully.

Very respectfully,

ROBERT J. FRICK,

Secretary I. R. D. L., Louisville, Ky.

South Carolina Board of Pharmacy met at Charleston, March 8, and of four candidates granted certificates to Royal Rouse, George H. Thompson and W. S. Prince, all of Charleston.

Connecticut Board of Pharmacy has licensed Daniel McCarty, A. H. Benhard, E. F. Richards, Croaby Pulling, S. M. Allen, J. T. Burns, J. P. Fitzpatrick, W. J. Galvin, T. B. Carney, J. B. Burgeois, Peter Morgan, B. L. Ueberfeld, Jr.

Iowa Board of Pharmacy.—The following are the successful ones at the March examination: John H. Rambo, Douds; C. W. Larson, Stanton; J. H. Power, Bloomfield; J. D. Jones, Carbon; C. W. Kent, Hampton; Miss Georgiana Knapp, Hull; W. S. Conklin, Des Moines; F. W. Cooke, Swadlow; Charles B. Atzen, Thor; A. J. Mettlin, Oswein; Frank H. Wunderlich, Dubuque; Mrs. F. M. Bunting, Rock Valley; James H. Miller, Eddyville; H. M. Salmon, Fort Madison; W. C. Smith, Marble Rock; C. M. Myers, Eagle Grove; Charles A. Little, Lamont; C. Marshall, Jr., Ackley; G. H. Carse, Pleasant Plaine; Charles A. Delander, Des Moines.

NEW YORK.

New York, March 24.—Another bill, this time of genuine interest to the retail druggist, has been introduced at Albany. It does not affect so many retailers as the bill given in the Era's last issue did patent medicine men, but it is quite as bad a bill just the same. By the courtesy of one of the solons the Era is enabled to print the bill in full. It is entitled "an act to amend the excise law in relation to druggists' licenses," and is as follows:

Sec. 1, subdivision 5, of sec. 19 of the excise law is hereby amended to read as follows and to take effect immediately:

A license to the keeper or keepers of a drug store permitting sales therein (only upon a physician's written prescription to be used but once) of strong or spirituous liquors, wines, ale or beer (not to be drunk on the licensed premises) in quantities of less than five gallons for medicinal, mechanical, artistic and sacramental purposes, which shall be known as a druggist's license and for which the fee shall be \$50. A druggist shall not be licensed under this sub-division unless he is a duly licensed pharmacist, and shall not be granted any other license under this act.

Sec. 2, chapter 402 of the laws of 1892 is hereby repealed.

The law now on the statute books provides that the fee shall be \$20, so this new measure adds \$30 to the tax. Mr. Nixon introduced the bill on March 15. The Era correspondent sent to him to find out the why and wherefore, and has received the pleasing answer that he only introduced the bill by request, that he knows it is a bad one, and that it will probably be killed in committee. Mr. Nixon is assured that he voices the sentiment of every retailer in this city.

The local druggists are all at sea anyhow on this matter of selling liquor legitimately and some of them say that they have got to stop selling it in any form, prescription or otherwise. The present tax for wholesale licenses is \$200, whereas last year it was only \$50, and the increase is so large that it doesn't pay to take out a license. The only thing a druggist can do now if he has an emergency call for brandy, for instance, is to send the applicant to a saloon or a grocery store if either is open at the time. But how about a call in the middle of the night, a by no means uncommon thing? He has either to refuse to sell the article or run his chances. With all the deference possible to those who denounce any suggestion that the druggists should have somebody at Albany to look out for their interests, it does seem as if that is the very thing needed. Somebody is all the time trying to put through bills affecting the drug business injuriously. Why shouldn't the other side protect itself? Is the query of one local pharmacist.

The election at the College of Pharmacy resulted about as was expected. The old college building, soon to be deserted, has seldom held as large a number of gentlemen on a like occasion, for there was a reason for the presence of as many as could be got out. There were six names before the meeting for trustees and only five could be elected. T. J. Macmahon's name, as told in the last issue of the Era, had been sent out on a separate slip after the rules governing the matter had been complied with, and Mr. Macmahon was elected. Mr. Osmun, whose name was on the regular ticket, was not. The result of the balloting was as follows:

Total number of votes cast, 90; president, Samuel W. Fairchild, 90; vice-presidents, Charles F. Chandler, 79; George Massey, 86; John R. Caswell, 89; treasurer, Horatio N. Fraser, 74; secretary, J. Niven Hegeman, 90; trustees to serve three years, Charles Rice, 90; Hermon W. Atwood, 88; Gustavus Rampsperger, 87; George B. Wray, 83; T. J. Macmahon, 63; Charles Osmun, 42. It was stated at the meeting that the new building will be occupied about the 5th of May. Just before adjournment Edward Kemp, of Lanman & Kemp, invited the gentlemen over to Delmonico's, where an elegant buffet lunch was served. President Fairchild made a very pleasant speech toasting Mr. Kemp, and the host responded in kind. Speeches were made by ex-President Ewen McIntyre, T. J. Macmahon and others. Both at the meeting and at Delmonico's the pleasant character of President Fairchild's administration was frequently commented on.

The trade recognized the bill introduced at Albany by Mr. Southworth, and which was given exclusively by the Era in the issue of March 15. It is this year's offspring of well known parentage and deserves nothing but death. In regard to this bill one manufacturer said: "This bill or one like it comes up every year, and everybody in the trade thinks it is nothing more or less than a strike. It is a very obnoxious measure, for it places in the hands of somebody clothed with a little brief authority the power of doing a great deal of harm. It is well known that in the hands of an incompetent man making an analysis almost any patent medicine or even so simple a thing as a quinine pill can be shown not to have in its composition just what the manufacturer claims it has. If the examiner wishes to bring out a certain fact in connection with the medicine under analysis he can easily do it. Any bill of this kind is dangerous and moreover it is an outrage to compel the patent medicine manufacturer to do what no other man is compelled to in the way ordered in the bill the Era printed."

There is a society in this city called the "Niederwald," four-fifths of the members of which are druggists. Victor Kostka, of the New York branch of the Interstate League, is president of the society. On the 7th of March the "Niederwald" gave a very enjoyable masquerade ball at Teutonia Hall on Third Avenue, and every man in the party was a druggist. There was no mention of "shop" at the ball, and not one of the masks gave any clue as to the business of the participants. About 100 persons were present. On Sunday this society will give an Easter festival at Teutonia Hall, in which the wives and children of the members will take part. It will be one of the old-fashioned affairs where everybody takes hold and helps to make everybody else enjoy himself.

The children will hunt eggs all over the hall, there will be a little performance by talent in the society, and an orchestra composed of members of the organization will make sweet and appropriate music. Among the members of this delightful little company are Messrs. J. Fleischer, R. Staebler, of Newark, F. A. Hatterman, and George T. Riefflin, of Sharp & Dohme.

The trade is talking about the great advance in cod liver oil, and the uncer-

tainty of prices and of the supply of new crop oil. Dealers do not yet know the amount that will be received. The same speculation exists regarding cocaine. Cocaine muriate is now held at \$5.90 an ounce, and manufacturers expect that much higher prices will prevail. The cause of the rise is the reduced supply of coca leaves and the diminished proportion of alkaloid these leaves contain. Menthol has been very high the last two or three months, selling lately at \$6 and over per pound. In view of the fact that large consignments of menthol are supposed to be near at hand, the price will probably drop soon.

The suicide of the Italian druggist, Francisco Priore, whose place of business was on James street, deserves more than a mere mention. He was for twenty years a soldier in the Italian army and his idea of honor was a high one. The story of his death shows that he inherited in no small degree the spirit of the old Romans. Priore's son, Lorenzo, had been arrested and placed in the Tombs prison on the charge of abducting a Brooklyn girl named Lizzie Hamilton. The arrest almost broke his father's heart and the subsequent worry and dark outlook for the young man made matters worse. Finally the druggist decided that he could not stand the disgrace that had been brought upon him by the son and took enough strychnine to kill a dozen men. Then he philosophically awaited his end. It was slow in coming, so slow, in fact, that the druggist expressed his astonishment. When the final struggle came he suffered stoically. Four physicians tried to save him, but in vain.

When his son learned that his father was dead and the reason for his suicide he also expressed his intention of killing himself. The young man is said to have been graduated from an excellent pharmaceutical college and to have borne a good reputation previous to this affair.

The games in the bowling tournament of the Wholesale Drug Trade Association since the two described in the last issue of the Era were very interesting, and attracted many of the boys from the various firms in the association, as well as a number of those who hope to become members when more teams are allowed to come in. There is no doubt that the success of this tournament in bringing the boys together has been phenomenal, when one considers how hard it is as a rule to get the drug clerks to meet. The employers have set a splendid example in this matter. Some of the heads of firms have bowled in the teams and others have attended the tourneys to encourage their boys. It is said that one employer who has not for years set foot in a saloon did so a few weeks ago simply because he wanted to show his clerks that he is interested in the sport. The games are held under Hohmann's saloon at present, but it is pretty certain that next year more suitable alleys will be selected. In the hurry of arranging the tournament this year the young men took what seemed the most central place for holding the games. The association is bound to grow, in fact there are now five drug houses who, it is said, want to have their teams enrolled. These are Corrant & Co., W. H. Schleffelin & Co., Tarrant & Co., Lanman & Kemp and E. Merck & Co. When the tournament is over it is intimated that the winners will either

be given a dinner or will have the value of the first prize doubled by the house they represent. The first prize is to represent the value of \$25.

The scores of the games on March 10 are as follows:

FIRST GAME.

G. C. BACon & CO.				
	S.	B.	Scr	
Hacon	1	3	4	132
Davis	1	3	6	121
McKenzie	2	4	4	151
Boer	0	1	9	93
Paul	0	2	8	86
Totals	5	14	31	583

WHITALL TATUM & CO.

	S.	B.	Scr	
Hurford	2	5	3	148
Howe	0	3	7	103
Leater	0	2	8	111
Mannion	2	3	5	140
Tamlyn	0	4	1	131
Totals	4	17	28	633

FRAMES.

G. C. Hacon & Co.	48	111	182	261	310	374	422	484	526	553
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Whitall, Tatum & Co. 63 118 173 253 306 375 431 505 576 633
 Umpire—J. H. Howe. Scorers—Charles Wise and William Timken. Average—G. C. Bacon & Co., 116 3-5; Whitall, Tatum & Co., 126 3-5.

SECOND GAME.

G. C. BACon & CO.

	S.	B.	Scr	
Hacon	1	1	8	91
Davis	0	1	9	80
McKenzie	2	2	4	144
Boer	2	1	8	109
Paul	2	1	7	100
Totals	6	6	36	521

DODGE & OLCOTT.

	S.	B.	Scr	
Euler	1	3	6	113
Martins	2	2	6	122
Lusk	2	2	6	125
Ruddiman	3	3	4	151
Howe	1	3	6	128
Totals	9	13	28	637

FRAMES.

G. C. Bacon & Co.	54	111	195	266	301	361	414	470	521
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Dodge & Olcott 65 124 194 250 311 357 429 516 570 637
 Umpire—Thomas M. Mannion. Scorers—David Green and Charles O. Herx. Average—G. C. Bacon & Co., 104 1-5; Dodge & Olcott, 127 2-5.

FIRST GAME.

PARKE, DAVIS & CO.

	S.	B.	Scr	
Ahearn	2	5	5	133
Marlager	0	2	5	120
Jenkins	4	3	3	177
Thornton	0	1	9	101
Carr	2	4	4	139
Totals	8	15	27	680

M'KESSON & ROBBINS.

	S.	B.	Scr	
Schuster	2	1	7	130
Oehler	0	1	9	90
Burne	2	0	8	98
Wisz	0	0	10	50
Timken	1	4	5	120
Totals	5	6	39	536

FRAMES.

Parke, Davis & Co.	72	131	214	294	356	430	499	572	618	680
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McKesson & Robbins 72 134 179 224 292 339 393 443 536
 Umpire—J. H. Howe. Scorers—John Ruddiman and E. Remeschling. Average—Parke, Davis & Co., 136; McKesson & Robbins, 107 1-5.

SECOND GAME.

PARKE, DAVIS & CO.

	S.	B.	Scr	
Ahearn	2	5	3	157
Marlager	2	4	4	152
Jenkins	5	1	4	179
Thornton	0	2	8	104
Carr	3	4	3	166
Totals	12	18	22	751

DODGE & OLCOTT.

	S.	B.	Scr	
Euler	0	2	8	108
Martins	2	3	5	112
Lusk	2	2	6	113
Ruddiman	3	4	3	169
Howe	1	5	4	153
Totals	7	16	27	676

FRAMES.

Parke, Davis & Co.	83	182	266	322	388	445	526	602	675	751
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Dodge & Olcott 62 125 171 224 288 365 440 546 655 676
 Umpire—Charles Wisz. Scorers—D. E. Green, Jr., and I. W. Mead. Average—Parke, Davis & Co., 150 1-5; Dodge & Olcott, 135 1-5.

On March 24 the C. G. Bacon & Co. team met those of Seabury & Johnson and Parke, Davis & Co., with the following results:

FIRST GAME.

SEABURY & JOHNSON.

	S.	B.	Scr	
Seabury	1	1	8	98
Dakin	1	1	8	106
Benjamin	3	4	3	163
Dezeler	1	3	6	113
Temper	3	3	3	160
Totals	9	10	31	641

C. G. BACon & CO.

	S.	B.	Scr	
Bacon	2	0	8	97
Davis	1	3	6	115
McKenzie	1	1	8	101
Boer	0	1	6	113
Paul	1	2	7	111
Totals	5	9	36	546

FRAMES.

Seabury & Johnson	68	113	165	228	279	350	405	507	579	641
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C. G. Bacon & Co. 44 98 164 225 279 341 380 449 546
 Umpire—W. Tamlyn. Scorers—T. M. Mannion and G. S. Marlager. Average—Seabury & Johnson, 128 1-2; C. G. Bacon & Co., 109 1-5.

SECOND GAME.

PARKE, DAVIS & CO.

	S.	B.	Scr	
Ahearn	2	3	5	143
Marlager	3	3	4	169
Jenkins	5	2	2	232
Thornton	0	0	19	91
Carr	1	5	4	143
Totals	11	14	25	739

C. G. BACon & CO.

	S.	B.	Scr	
Bacon	1	0	8	77
Davis	2	8	9	166
McKenzie	1	2	7	111
Boer	2	1	7	120
Paul	1	0	9	91
Totals	7	3	40	505

FRAMES.

Parke, Davis & Co.	88	187	278	363	425	488	546	617	673	739
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C. G. Bacon & Co. 40 103 155 203 247 300 344 387 444 505
 Umpire—E. A. Olin. Scorers—J. H. Howe and E. W. Martens. Average—Parke, Davis & Co., 147 4-5; C. G. Bacon & Co., 101.

The standing of the teams is as follows:

	Won.	Lost.	H. S.
Whitall, Tatum & Co.	3	0	770
Dodge & Olcott	2	1	676
Parke, Davis & Co.	4	1	751
McKesson & Robbins.	2	2	692
Seabury & Johnson	1	2	641
C. G. Bacon & Co.	0	5	546

Moffatt's Pharmacy in the Astor House is being fixed up in first-class shape.

Dr. Charles Rice is about as good an example of a busy man as there is in this city.

L. E. Felndt, of South Orange, N. J., has moved into his new store, corner of Vose and South Orange avenues.

A. W. Sholes has established a pharmacy at 134 State street, New London. His manager is James L. Havens.

Daniel F. O'Connell, the pharmacist at 82 1/2 Broadway, will open another store at 55 Whitehall street, about May 20th.

G. B. Calman, the varnish manufacturer of Pearl street, has sailed with his family for Europe, taking the Genoa route.

John Pyne, formerly of Bellevue Hospital, is now in charge of Perry's Pharmacy, in the World building, at night.

A new member of the drug trade section of the Board of Trade of this city is the firm of C. F. Boehringer & Soehne, manufacturing chemists of 15 Cedar street.

The latest report received by a city firm about cichona bark sales in London showed that prices are much firmer.

The death of the senior member of the firm of Hayden & Kirk, of Jacksonville, Fla., was reported recently to McKesson & Robbins.

Mr. Loud, of Merck & Co., will soon be seen out on the road. Mr. Queney has arrived from St. Louis and has begun his work at Mr. Loud's old desk.

G. W. Chesbro, formerly with William H. McNair at Twenty-fourth street and Ninth avenue, has purchased the drug store at 623 Wythe avenue, Brooklyn.

That swindler who was so partial to plasters has not yet been captured. If he will only give the trade one more visit he will find himself received in proper style.

G. H. Somers, of Philadelphia, is said to be very sick at his home. Mr. Somers is well known in this city and is especially favored with friends in Jamaica, W. I., and the south.

Dr. A. M. Augsburgber, Lehn & Fink's representative in New Jersey, is down at Atlantic City for a couple of weeks to recuperate. He deserves to get all the benefit he desires.

The latest addition to the staff of Tarrant & Co. is M. C. McGrath. That assignment of brushes from Hines, Ltd., to Tarrant & Co., is now at the appraiser's warehouse.

William M. Townley, a well known druggist, died at Newark last week of pneumonia. He was the head of the Townley Drug Company and of the Paas Egg Dye Company, of Newark.

Among the other drug news from Florida received in this city this week was the sale of W. H. Evans & Co.'s store at Sanford to W. H. Mudge, and the assignment of George Hughes, of Jacksonville.

Dr. Lederle, assistant chemist of the Board of Health, has just returned from a trip to Europe in the interest of the city. Among other cities he visited London, Paris, Berlin, Vienna, Leipzig and Munich.

Dr. Hugo Kruse, of Peoria, Ill., an ex-druggist and well known in the western trade, has sailed for Rome by the Genoa route. He is to attend the International Medical Congress which is soon to hold its eleventh session in Rome.

W. N. Clark, of the firm of W. H. Schieffelin & Co., left New York for the Windward Islands on February 17 and returned on March 22. He visited St. Thomas, St. Kitts and Santa Cruz among other places, had a very pleasant time and returns in capital health.

The manager of the New York office of Ed. Pinaud reports that their business has increased over last year, which in the light of the present depression is worth congratulation. The firm's showing at the World's Fair has borne some fruit, results in Texas and the west being directly traceable to the exhibit.

Among the drug stores soon to be fitted with Low's Art Tile soda fountains by Howell & Sangston, New York agents of the company, are those of G. H. Corwin & Co., Greenport, N. Y.; E. S. Reed, Atlantic City, N. J.; A. D. Mallinson, Plainfield, N. J.; H. A. Faulkner & Son, Hoboken, N. J.; Corwin & Co., Shelter Island Heights, N. Y.; J. Taylor Clark, Bayonne, N. J.; and James Foulke, 107 Monticello avenue, Jersey City, N. J.

Hermann Weller, class of '87, N. Y. C. P., who has been clerking with J. P. Scherff, of Bloomfield, N. J., bought out the drug store of Charles L. Marshall, 99 Washington avenue, Newark, last week. Mr. Weller is an enterprising young man with many friends, who say he is just the kind of a man who will achieve success.

R. W. Walker, New York agent for J. W. Tufts, has put in new fountains at the drug stores of Louis H. Gaus, Albany, N. Y., and E. A. Sarot, Sag Harbor, N. Y., and has refitted fountains for A. G. Smith, Ellenville, N. Y., H. H. Howgate, Highland, N. Y.; C. R. Lush, Hempstead, N. Y., and C. C. Watkins, 2338 Third avenue, New York City.

Dr. John W. Burns, of Cuero, Texas, who is connected with the General Patent Medicine Depot for Western Texas, has been in this city attending the Polyclinic. He went home last week. Dr. Burns is well known in the south and has made many friends during his stay here. The General Patent Medicine Depot has offices at Victoria and Cuero, Texas.

R. W. Johnson, of Johnson & Johnson, William street, is back from a six-weeks' trip to Florida. Mr. Johnson had the best of fisherman's luck. During his stay four big tarpon were caught, of which number he only secured three. Still his friends think that was only a fair proportion for him. The largest of Mr. Johnson's catch was seven feet long and weighed 186 pounds.

The New York Quinine and Chemical Works will soon have its office on William street in better shape. What with the painters, the carpenters and the furniture men, the place will have a brighter look, and one more in keeping with the cheery countenances of the gentlemen in the office. Vice-president Cook will make the office more of a headquarters for the company's friends. If he has one-hundredth part of his friends call to see him, he will have to keep carpenters laying a new floor from the door to his desk most all the time.

NEW YORK COLLEGE OF PHARMACY.

Well, if the boys haven't had plenty of sport lately they'll eat their hats. The latest piece of fun had a very serious side, too, but all came well in the end. The story rather puts the laugh on the blue-coated preservers of law and order, though. Maxim Auerbach, aged 20, of 331 East Fifty-seventh street, Henry Fendler, aged 19, of 493 Lexington avenue, and Charles Prior, aged 21, of Middletown, N. Y., were arraigned in the Yorkville Police Court before Justice Koch on the morning of March 17, charged with disorderly conduct. The students had been taken into custody the previous evening while engaged in a display of fistic skill in Amthor's saloon, just opposite from the college. It seems that Police Capt. Gallagher, of the East Thirty-fifth street station, had been told that some students had arranged a "scrap" according to Queensberry rules, and he had sent Policeman Benham to investigate. The policeman in citizen's dress sauntered into the saloon with the hundred or more students and awaited developments. Presently a ring was formed and the two champions came forward and proceeded to business. There was a good deal of science shown and the contestants earned applause by their good display. In two

minutes time was called and an Benham was about to begin Policeman Benham, who had quietly slipped out, returned with several other men from the station and took the combatants, the referee and the proprietor off to the lockup. All four were placed under \$500 bail, which was furnished readily. In court the next morning the students denied the story about there being any rivalry between the contestants and said that the whole affair was merely a friendly bout such as is indulged in every once in a while at the same place. Justice Koch took the right view of the matter. He said that he believed in encouraging practice in the manly art so long as it was conducted within the provisions of the law. He did not see that a prize fight had been arranged or fought, and he discharged all concerned. Considerable praise should be given to one of the young gentlemen who took a certain responsibility in the matter, when it is said that another person was really the one interested. The affair has been the talk of the college, but the whole thing was gotten up in the spirit of fun, and there should be no thought that the boys did anything wrong or even sufficient to warrant the police in taking the principals to the station house.

The first batch of class pins have arrived and the boys think they are very fine.

Dr. Pellet took Dr. Chandler's place at the lecture on organic chemistry and pleased the boys immensely.

Dr. Rusby's synopsis for the summer class in botany is out. The class is open to pharmacists both in and out of college.

Quizmaster Ferguson has given the seniors an extra hour and a half quizzing, which is of great assistance. It is appreciated by all.

The seniors are hoping that the class picture will be taken in front of the new building and are working quietly to that end. It is said that they have a good chance to have their way.

Henry Kraemer takes the late Dr. Harrison's post as editor of the Alumni Journal. The boys all thought that the March number was a very excellent one.

"Volumetric solution" has been a source of worry to the boys, some of whom now admit that they do not know as much about the subject as they thought they did.

The seniors are arranging private "quizzes" in order to be better fitted for the coming examinations. The latter will begin on Monday, April 16, and will continue during the week.

Commencement exercises will occur on the 25th of April at the Carnegie Music Hall, instead of the 26th at the Metropolitan Opera House. It is understood that the return of the opera company to the big temple of song is the reason why that change had to be made.

One of the most interesting of lectures was that delivered on the 14th by Dr. H. H. Rusby on "Observations of a Pharmacognosist in London." This was one of the series of lectures held under the auspices of the Alumni Association and was illustrated by specimens. Among those who enjoyed the lecture and afterward discussed it was Alfred H. Mason, of Seabury & Johnson, who complimented Dr. Rusby on the accuracy and excellence of his paper.

BOSTON.

Boston, March 22.—It must have astonished the druggists in Western Massachusetts a short time ago when the Springfield Republican came out with a three-column article devoted to some of the peculiarities of the drug trade in Westfield. Had it been some other paper the matter might have passed almost unnoticed, but the standing of the Republican is so high and its influence so far-reaching that the statements seem to call for considerable study and reflection. The revelations are based on facts obtained from the books kept by the druggists in which to record their sales. No exaggeration, therefore, has been possible. Westfield, which furnishes the data, ranks high among New England towns in the possession of those qualities which make a model civilization possible. More than 7,000 pints of gin, whiskey, beer, etc., were sold by six druggists in Westfield in thirty-one days during the period immediately following the inauguration of local prohibition there last spring. That quantity represented over 5,500 separate sales, of which over 5,500 were classed as "medicinal." A simple arithmetical computation shows that at this rate more than 80,000 pints, or over 10,000 gallons of strong drink will have been sold by May 1. An examination of the law shows that it is responsible for this state of affairs to a certain extent; to how great an extent it would be difficult to decide. The blank certificate system has proved to be woefully inefficient, for no drinker seeking gin hesitates to record that his purchase is for "medicinal" purposes.

"It is evident," says the Republican, "that this abuse should be carefully looked into by the Legislature, and something done to stop a scandalous traffic. Advocates of prohibition should be concerned more than all others to prevent the business of the saloons from being transferred to the drug stores, because the no-license argument is greatly weakened unless the druggists can be kept within their legitimate sphere. Indeed, in the face of the showing which is made it should be no longer possible for the Legislature to tolerate the farce of a \$1 license fee for druggists. The confidence implied in the present law is being shamefully abused by a sufficient number of druggists to condemn the law and demand its amendment without delay."

Attention has lately been called to the operation of the no-license law in Hyde Park. Prohibition has been the rule in the town since 1882, but four druggists have licenses and some folks assert that it is as easy for a stranger to purchase a pint of whiskey as it is to secure the same quantity of benzine. The system is the same as in all the other towns of the commonwealth. The druggists are placed on honor and are governed only by the law that sales of liquor by druggists shall be made only upon the certificate of the purchaser, which certificate shall state the use for which the same is wanted. A book shall be kept by every druggist, in which he shall enter every such sale. No sales can legally be made on Sunday. A druggist for violating the act may be prosecuted or punished, but it has never been known in Hyde Park, as no convictions have ever been secured. The authorities place full faith in their honor,

and such a thing as an investigation is not on record in the eleven years of a no-license system. One selectman says that all the druggists are honorable gentlemen and that the board is satisfied with the way in which the business is conducted. The chief of police states that the liquor sales among the druggists are conducted within the law. He has no idea of the average yearly sales in the town, but imagines they are less than in any other town in the state of proportionate population. One of the druggists states that if two others will give a statement of their annual sales he will, too, otherwise he will not. Meanwhile the gossips in the town continue their guesses and insinuations about the state of the trade in the town.

There is now before the Legislature a bill introduced by Senator Cronan relating to the analysis of all patent and proprietary medicines. In this proposed law it is provided that the owner of a patent or proprietary medicine, which is to be sold or offered for sale, shall furnish the State Board of Health with the formula used in the preparation. It will be analyzed by the board from time to time, and if the ingredients used in the preparation are found to be injurious to health the board will notify the owners of the medicine, and advertise the name of the preparation and the result of the analysis in the newspapers. The formulas furnished to the state will not be accessible to the public.

Sentence was imposed in a case of alleged violation of the liquor law one day this month at Lawrence, from which an appeal was taken, and it is possible that before the case is finished it will bring about a ruling as to the amount of liquor a druggist may legally have in his possession. The defendant was Simon Viger, a member of the firm of Belleville, Viger & Co., who conduct drug stores on Franklin and Hampshire streets, Lawrence. Dr. O. T. Howe, a witness for the prosecution, said that to the best of his knowledge it was a rare thing for a physician to write a prescription containing brandy, whiskey or gin. Dr. Victor Mignault, who was called for the defense, said that whiskey was used sometimes in diphtheria cases as an ingredient of medicine. Brandy was used in medicines in typhoid fever and pneumonia cases, and gin was used in connection with dropsy and stomach troubles. The court found Viger guilty, and imposed a fine of \$100 or three months; and it is from this decision that appeal is taken.

A decree of interest to wholesale and retail druggists and manufacturers of chemicals has just been given in the case of Kerry et al. vs. Toupin, in the United States Circuit Court for the District of Massachusetts, Judge Aldrich having approved a decree for perpetual injunction and for reference to C. F. Searle, as master, for an accounting in accordance with an opinion filed March 1. The complainants, who are the leading manufacturing chemists in Canada, contend that their trade name, "Syrup of Red Spruce Gum," was not only a trade name entitled to protection under the International Convention for the Protection of Industrial Property, but also amounted to a trade mark at common law. The law of England and America has been that descriptive words were public property, and the courts have hitherto refused protection

to such names as "Iron Bitters," "Acid Phosphate," and a large number of seemingly descriptive trade names, notwithstanding the fact that the original users of such names have frequently expended thousands of dollars in advertising their products, and that their competitors have sprung up after the products have become popularized at the expense of the originators of the names. A famous authority on the trade mark question once declared that the deduction from the English and American cases was that the courts would not permit a man to "commit a fraud except by the use of a descriptive name." The case of Kerry vs. Toupin is the first case ever finally decided in which the international convention has been involved, and the meaning of the words "commercial name" or "non-commercial," as used in the treaty, defined. Judge Aldrich decrees that the defendant has infringed upon Kerry, Watson & Co.'s rights in their trade name, "Syrup of Red Spruce Gum," under the international convention and also upon the complainants' trade mark rights in that name, and has ordered an injunction to issue perpetually restraining the defendant from dealing in an artificial medicinal preparation under the name of "Syrup of Red Spruce Gum," or any translation thereof. The convention being in the French language, and in the nature of an international treaty, involved an extended consideration of the civil law of France, by the light of which the terms of the convention are interpreted. In this case it appeared that the complainants had expended over \$100,000 in advertising, and the question was whether their competitors would be allowed to break in upon the complainants' business by selling a similar mixture under the name adopted by the complainants. The highest courts in Canada had refused relief to the complainants, and the result of this contest in the United States courts has been watched by druggists and manufacturers of chemical preparations with much interest.

The Essex pharmacy in Holyoke has been sold by Cunningham & Koegel to J. J. O'Flaherty. He has been in the drug trade in the city since 1888, when he entered the employ of J. J. Nugent.

The police of Brockton jailed the drug stores of William Donkin and J. E. O'Connor. They secured about twenty gallons of liquor at Donkin's and a small quantity at O'Connor's.

Down in Cohasset, a town on the rocky coast just south of Boston, the selectmen appear to be running affairs pretty much to suit themselves, without regard to the other citizens. Here the town has voted in favor of liquor licenses, 95 to 58, yet the chairman of the selectmen autocritically says that if the single druggist there applies for a license it will be refused, and he adds: "He held a license in 1890, and we believed its privileges were abused. At all events there was liquor drinking here that cost us something, and all we received from him was a \$1 license fee. He has made an application each year since then, but it has always been refused. Those who want it for medicinal or mechanical purposes can get it right here in Cohasset. It matters very little what purpose one wants it for if they know where to go. There is plenty of it in town." And this is what the town clerk has to say on the subject: "We have had all the experience

we want in trying to convict illegal rum-sellers. The 'yes' vote this year will not change conditions in the least. It is a pretty sure thing that our druggist will apply for a license, but he will be refused. There will be no permit to sell liquor granted in Cohasset this year at least."

There are rumors afloat in Malden which indicate that there may be considerable uncertainty about the granting of liquor licenses to druggists the coming year. The matter will come before the aldermen soon, and it is known that several of the members of the board are opposed to granting any licenses to local druggists. At the recent meeting of the Malden Prohibition Club a resolution was passed calling on the Mayor and aldermen to stop the granting of sixth-class licenses. If the board departs from the views of the boards of the last few years, there must be heroic action, and it is doubtful if this may be expected from the present aldermen. The local druggists' association is holding frequent meetings, and although the members have voted not to allow any of the business of the organization to be published in the local papers, it is well known that a schedule of prices has been adopted, and that the members have pledged themselves to sell only at these prices.

A communication has been received by the Lowell City Council from the State Board of Pharmacy, complaining that a registered pharmacist is not always to be found at the drug store of Thomas F. Hoban, in Melville. A notice has been sent to Mr. Hoban that his liquor license will be forfeited if he does not comply with the law.

According to the latest bulletin issued by the State Board of Health, only six of the thirty drugs inspected during January were found to be adulterated or varying from the legal standard. The samples of drugs found to be adulterated were chloroform, solution of magnesium citrate and syrup.

By a vote of the town of Avon, the selectmen are to grant no liquor licenses to druggists.

A blaze in a drug store in Holyoke, kept by A. F. Lyonaize, recently caused a small loss.

P. T. Noyes, manufacturing druggist at Lancaster, N. H., is to remove his establishment to Nashua, N. H.

C. C. Bingham, a prominent druggist in St. Johnsbury, Vt., has been elected vice-president of the Y. M. C. A.

H. C. Hall, a druggist in Waltham, was swindled out of ten dollars last Monday by a man about 39 years of age, who used a worthless check.

George L. Dearborn, a druggist, was a sufferer by the extensive fire at Newmarket, N. H., on March 11, though his loss was caused chiefly by water.

An incendiary has been at work in Waltham, and one of the places which he tried to destroy was the drug store of H. E. Fleming, corner of Moody and Spruce streets.

At a meeting for organization of the Bagley Dandelion Compound Co., at St. Johnsbury, Vt., officers were elected as follows: President, C. D. Bagley; vice-president, Dr. T. R. Stiles; clerk, J. E. Gage; treasurer, H. A. Stanley.

A report has been presented in the Massachusetts Senate to the effect that the bill to limit and regulate the sale of

intoxicating liquor by druggists and apothecaries for medicinal, chemical and mechanical purposes, ought not to pass.

At the last meeting of the Boston Scientific Society, Prof. George F. H. Markoe presented a paper entitled "Nitric Acid and the Nitrates," which was similar in its nature to the papers read by this gentleman at previous meetings.

Temperance folk in Marblehead intend to petition the selectmen that, when the time comes for granting druggists' licenses, a public meeting be called, that the people may vote on the question. But some think that this will be unnecessary, as a majority of the selectmen elected were decidedly opposed to the granting of druggists' licenses.

At sessions of the Board of Registration in Pharmacy, held March 6, 7 and 8, forty-six candidates were examined and the following named were granted certificates: C. E. Alonzo Cameron, of Springfield; Albert W. Thomas, of Boston; Leon C. Ellis, of Lynn; Henry E. Bannister, of Boston; Benjamin F. Myer, of Boston; James A. Beane, of Boston; Fred E. Jones, of Lowell; Benjamin R. Day, of Boston; Thomas F. Carey, of Woburn; Alexander W. Cunningham, of Boston, Fred C. Beane, of Boston.

The anti-cigarette people have had another inning before the committee on public health at the State House. Representative Teamoh, who introduced a bill prohibiting the manufacture and sale of cigarettes and cigarette tobacco, spoke strongly in favor of the bill, and impressed on the committeemen the "great harm" which is done to the public health by the use of the article which he seeks to prohibit. There is a law now which prevents the sale of cigarettes to minors, said he, and the druggists and other dealers are obeying the law. It is extremely improbable that the Legislature will pass such a bill as that proposed.

Druggists have been heavy losers by fire in the last few weeks. At Gloucester, on March 17, F. A. Barker's store was damaged to the extent of several thousand dollars. Fortunately he was insured. A few days previous a fire was discovered about 2 o'clock in the morning in the drug store corner of Prospect and Park streets, Gloucester, occupied by A. P. Parkhurst. The rear of the store was thoroughly gutted and the roof partially burned. The damage to Parkhurst's stock was \$600. In this city a few days ago, there was a fire at No. 335 Columbus avenue. The lower floor, corner of Dartmouth street, is occupied by William J. Conklin, who has recently purchased the drug store formerly owned by Charles Captain & Co., and who also leases the entire building. The fire in its upward progress caused a damage to the fancy fixtures of the store to the extent of from \$1,000 to \$1,500. The fourth and fifth floors are occupied by Mr. Conklin, and his costly furniture is damaged to the extent of fully \$1,500. Mr. Conklin's loss on both the drug store and his apartments above is fully covered by insurance. An explosion of naphtha recently caused a slight fire in the drug store of H. Cobley, 45 Hancock street, Dorchester. At 134 Milk street, in a building occupied by A. Klipstein & Co., dealer in aniline dyes, a blaze caused a damage of about \$150, and at Springfield, the building of the Hecla Chemical Company, on Hickory street, was burned to the ground, with a loss of about \$500.

PHILADELPHIA.

Philadelphia, March 22.—Since the last letter to the Era the business outlook in this city has undergone somewhat of a change for the better. There were a few exceptions taken to the article published in the March 15th Era, in which it was stated that the drug trade in this city was dull. A few said it was not the case with them, and intimated that the dullness was confined to the retailers. Notwithstanding this, the largest houses in this city have repeatedly said since the latter part of February that the trade, which picked up just before Christmas, was beginning to fall off, and so that if something for the better did not soon take place there is no telling what would happen.

From a number of the best informed wholesale druggists it is learned that the prospect of better business is more encouraging, and it is hoped that there will be no cessation of orders for some time. Some of the establishments that were compelled to reduce their forces are now taking back their old hands, and in many cases overwork is required to get the orders out on time, and even with this extra work they cannot keep pace with the demand.

"When thieves fall out honest men get their due." This is applicable at the present time to the trouble that the Distilling & Cattle-feeding Company is having with its adherents and henchmen. For some time there has been considerable trouble existing between this company and the American Distributing Company, both of which were working hand in hand with each other against the consumer. It appears that the American Distributing Company is sick of its arrangements with the whiskey trust, and threatens to withdraw and start up distilleries of its own. It was said that a few days ago a settlement had been reached, and that the two companies would work together again, but since then the angel of peace has departed and an imp of darkness is pointing out the path for these blind companies. The distributing company is not satisfied with the profits the whiskey trust is said to be making, it claiming that all the business is on one side, and that side belongs to the trust. The distributing company also claims that the trust has not managed its business from a business point of view as well as it has from the speculative side.

It is generally supposed that the cut-rate druggist sells all his patent medicines and a number of other articles at a price considerably below that charged by the regular druggist. This is not always the case, and if the public in general had their attention called to the high prices these cut-rate people ask, it would do the regular druggist much good and lessen the profits of the man who claims to sell everything below that of the regular druggist. One of the largest cut-rate houses in this city advertised to sell Casara Sagrada at thirty-five cents an ounce and \$3.50 a pound, while the regular druggist sold this same article at ten cents an ounce, or \$1.25 a pound, and was satisfied to get this price, as there was a good profit in it for him.

French, Cave & Co. are very busy in their pharmaceutical department, they having to work overtime to keep up with their orders.

William McCorkle succeeds Dr. Palmer at Twelfth and Somerset streets.

J. H. Kirk has established himself in a handsome pharmacy at Chester, Pa.

Charles P. McDonnell has opened a new drug store at 1693 South Tenth street. Camm's Pharmacy at Norristown, Pa., has been purchased by W. H. Campbell, P. C. P., '88.

Dr. C. H. Bahl, formerly at 528 Master street, has opened a new pharmacy at Nineteenth and York streets.

C. F. Cartwright, formerly of Twelfth and Jefferson streets, has bought a store at Moore's, Delaware Co., Pa.

George W. Davls, a well known drug clerk of this city, has purchased T. D. Lewis' pharmacy in Scranton, Pa.

Robert W. Maris, of Tenth and Spruce streets has bought the store at Twenty-fourth and Thompson, formerly owned by W. A. Smith.

M. N. Kline, of Smith, Kline & French Co., has just returned from a trip to Washington and Old Point Comfort. He went away for a short rest.

Mr. Emerson, of the Emerson Drug Co., Baltimore, Md., has gone to London for the purpose of establishing the sale of "Bromo-Seltzer" in England.

William R. Warner, senior member of the firm of William R. Warner & Co., is in Rome attending the meeting of the International Medical Congress.

Shoemaker & Busch are making a fine display of chamolis skins and sponges. They have given up a room for this exhibition on the second floor of 604 Arch street.

Dr. B. L. Brown, who has the drug store at Tenth and Arch streets, has greatly improved the corner. He formerly kept the store at Seventh and Arch streets.

Mr. Simpson has purchased his partner's interest in the business at Broad and Parish streets. Mr. Kilgus will represent Hance Bros. & White in adjacent territory.

James Milligan, who was for many years a salesman for John T. Lewis & Bro. Co., lead manufacturers, of this city, died on March 9. Mr. Milligan was a well known man in the drug trade.

The new drug store under the Pennsylvania Railroad depot for Dr. Watts is rapidly approaching completion, and by the 1st of April it will be ready for occupancy. Bangs, of Boston, is fitting it up.

Farberweke, Vormals Meister, Lucius and Eruning, of Germany, have brought suit in equity in the United States District Court of this city against John Wyeth & Bro. and Rosengarten & Sons, asking to have the defendants enjoined from the manufacture of basic bismuth gallate, alleged to be an infringement on a patented invention.

Andrew C. Hewitt has purchased the pharmacy of Charles Oram & Co., 392½ Germantown avenue, in which he was previously a silent partner. Mr. Hewitt has for several years been one of the successful salesmen representing Hance Bros. & White. He will continue to supply Philadelphia druggists with fruit juices, his store being in charge of a graduate of the College of Pharmacy.

Wine of colchicum root has claimed another victim through carelessness. John Collins, a young drug clerk who lived in West Philadelphia, feeling unwell one day last week, went into the cellar of the

drug store of Charles J. Hiddle, at 3248 Market street, where he was employed, and drank, as he thought, some port wine. Then he became very ill and went home soon afterwards beginning to vomit and purge. When the doctor called the next day he found no improvement in Collins. At the drug store it was learned, upon investigation, that he had drank six ounces of Wine of Colchicum Root instead of port wine. Collins died the same day, and the case was reported to the coroner.

The Drug Exchange, of this city, is about the first organization of its kind that protests against any legislation which affects the drug trade. When the Padlock pure food bill was introduced in Congress it was mainly through the push and energy of this exchange that the bill never became a law. Now there is another bill similar to the Padlock bill, which is in the hands of one of the committees of Congress. This bill was introduced in the House by Congressman Hatch, and it is similar to the Padlock bill in many respects. The Drug Exchange has its eye on this bill, and several meetings of the legislative committee have been held to devise measures to secure its defeat if it should prove objectionable. The matter is now being investigated, and in a short time some action will be taken.

The pharmaceutical meeting at the college, which took place on March 27, had a programme of much practical and scientific interest. F. W. Haussman read a paper on the "Presence of Lead in Citrates;" M. F. Schaape, on "Examination of Commercial Preparations of Phosphate of Iron and Alkaloids;" Joseph Crawford, "A Few Uncommon Vegetable Fibers;" Harold C. Barker, "An Analysis of Pycnanthemum Linifolium;" John Culey, "An Analysis of Sanguinaria Seed." Prof. Trimble was chairman of the committee of arrangements.

The junior class had its annual struggle last month, and now examinations are but memories. The questions propounded and answered—in some instances—were rather difficult.

The annual meeting of the members of the college was held on March 26, and the business of most importance transacted was the election of an editor for the American Journal of Pharmacy, which position has not been permanently filled since the death of Prof. Maisch. Prof. Henry G. Trimble was chosen as editor. The selection is considered an excellent one by the faculty and old men, who are greatly pleased that such an able man was secured. Prof. Trimble accepted the position only after much solicitation, and never was a candidate in the sense of seeking the editorship. With Prof. Trimble in charge of the Journal, its future success is assured. As trustees to fill the vacancies caused by the death of Prof. Maisch and the election of Mr. Shinn to the treasurer-ship of the college Messrs. Bastin and Procter were chosen. Messrs. Pitt and Stem were re-elected.

A cargo consisting of 313,500 gallons of brandy, 200 barrels of red wine, and 105 barrels of port wine, was recently dispatched from San Francisco to Germany. It is said that 400 barrels of the brandy were intended for use in the German army hospitals.

CHICAGO.

Chicago, March 22.—As the spring with all its brightness dawns once more we feel enthused to think the more than cruel winter to some sad hearts, with its biting poverty and distress has passed into history, and may the Easter bells ring in new hope, as much in the business world as in the home.

Sharp & Dohme have a new representative in the city.

The Paris green combination has not as yet issued their schedule of prices.

J. E. Griffin, Chicago, and western manager of Kahle's Bacilline, reports good sales.

Dr. A. E. EBert has bought a number of chemical specimens from the World's Fair sale.

Mrs. William Bod-man, on March 14th left for a California trip with a number of lady friends.

The salesmen of Morrissou, Plummer & Co. report a fair increase in business over last month.

Elkin Drug Company succeeds Elkin & Matkins Drug Company, corner Van Buren and State streets.

A. V. Lane, of Twelfth street and Wash-ash avenue, has decorated his store with a new set of awnings.

Louis Jungk, Fifty-first street and South Ashland avenue, has been in ill health for the last few days.

Dr. F. M. Trask, proprietor of the International Pharmacy, reports business quite dull in his neighborhood.

The druggists were busy on St. Patrick's night and possibly the following day, the result of the large parade.

Eckley & Roszell are now running a branch store—formerly owned by Mr. Flander—at Norwood Park.

Hurst's Pharmacy, at Morgan Park, is now managed by Arthur Cook, who formerly represented Heinemann & Co.

Buck & Rayner are canvassing the city trade for the sale of goods and new perfumes of their own manufacture.

V. H. Dumbek, of Hurst's pharmacies, seems to be busily engaged preparing for the soda season at the different stores.

"Al." Hunt, of Fuller & Fuller Company, reports an increase in number of orders, but quantities fall short of last year.

O. F. Alex, of Sixty-third street, has stored his stock and fixtures for the present, having taken a position in some other store.

B. M. Johnstone, of Park Manor, has succeeded W. R. Westgate, who was obliged to step out on account of ill health.

C. L. Lindemann, of Fifty-first and Wentworth avenue, has secured a renewal of his lease for five years, at a slight advance.

Robert Leonard, druggist, of South Chicago, Superior and Eighty-fifth streets, was a candidate for Alderman in the Thirty-fourth ward.

Harry Graft, of T. N. Jamieson's "Bamboo" store, is about to take a month's vacation out west. Ralph Coupler fills the vacancy.

T. N. Jamieson's World's Fair store, corner Sixteenth and Eggerton avenue, opposite the "Midway Plaisance," has at last closed its doors for good.

H. J. M. Schroeter, of 425 State street, opposite Polk, has secured a lease for an upstairs room in a new prominent

down-town corner building, where he will carry on a prescription pharmacy.

Mr. Gallbreth, of Robert Stevenson & Co., who unfortunately broke his leg some weeks ago, is improving as well as could be expected.

J. G. Flint, of George A. Graves & Co., Thirty-fifth and South Park avenue, has returned to his post of duty, after a month's vacation at home.

J. A. Burger, 423 South Ashland avenue, offers the last one of his young pointers for sale. They were on exhibition at the last canine show.

Dr. Titzel of One Hundredth street pharmacy, east side of South Chicago, is now a full registered pharmacist, having passed a successful examination.

Messrs. Robertson and Schultz, old employees of Dale & Sempill, are no longer on the corner of Clark and Madison. The public will miss their familiar faces.

Mr. Lincoln, of Lord Owen & Co., has been quite busy introducing a successor to Mr. Chandler, in the stock yards and Englewood district, to represent the firm.

Wrisley's new soap, "I'm all right," seems to have a drawing card. Mr. Wrisley was one of the fortunate ones who obtained a rebate from the gas company.

Walter H. Krouskop, owner of two stores, Thirty-seventh and State, and Wentworth, reports an increase in business in his neighborhood in the last month.

F. W. Hurlburt succeeds Mr. Brashires, of Morrissou, Plummer & Co. Mr. Hurlburt was formerly in the retail business, at Oakland boulevard and Cottage Grove avenue.

Theo Windholt is about to open a new store on West North avenue, in his building near Humboldt Park. This makes the third drug store Mr. Windholt has in his own buildings.

A. B. Charbonnel, northeast corner Thirty-first and Cottage Grove avenue, was at his business as usual Saturday, March 17, and was found dead in bed Sunday morning, from heart disease.

John Carnele, Michigan avenue and Sixteenth street, is away on a trip for his health in California. Mr. Carnele was formerly manager of E. H. Sargent & Co.'s retail department at 125 State street.

E. C. Riebel, of Forty-third and Wallace streets, experienced the loss of an unopened pound bottle of extract of crab apple blossom. Some one with a liking for perfume, appropriated it from the top of the show case.

J. J. Magee, of South Park, near the south entrance of the World's Fair grounds, is anxiously looking forward to warm weather, so as to cool the "weary and thirsty" who will probably visit the remains of the white city.

Joe Kearney, proprietor of Stearns' Electric Paste, has been busy with a law suit in reference to this article, with his former partner, Mr. Cremaux, for placing a similar article on the market. The result has not yet been ascertained.

Prof. N. Gray Bartlett, corner Twenty-second and Indiana avenue, is about to vacate his old corner, on account of the building being torn down. He has secured a room, but is still looking farther, for better advantages, if possible.

Mr. Schulte, formerly of the Meyer Bros. Drug Co., of Kansas City, has been in this city the past week visiting his son, of Fifty-fifth street and Jefferson

avenue, Hyde Park. Mr. Schulte has also just returned from a trip abroad.

John Dietz, druggist, Forty-fifth and State street, was one of the selected delegates to the primary of the Thirty-second ward, in behalf of the Republican nominee, Joel Longenecker, alderman of his district. Ald. J. R. Mann won by a big majority.

Dr. Hall, of Sixty-ninth and Paulina streets, has finished his new corner store front building, after considerable trouble, as the time of the contractors to have finished had expired and he was obliged to take the work out of their hands and supervise the completion himself.

Peter Van Schaack & Sons are busily engaged in the new issue of their "Price Current," which will soon go to press. Adolph Hoffman, for the last three years head of their country department, but formerly with Meyer Brothers Drug Co., St. Louis, says he is suffering from gout.

A collision occurred in front of the pharmacy of J. & W. E. Holland, corner Madison avenue and Fifty-fifth street, Hyde Park, a few mornings ago. An empty carriage standing in front of the store was run into and smashed by a runaway team, entangling the three horses and taking the policemen considerable time to unravel the heap. Fortunately no one was injured.

Otto Coltzan and family, corner Twenty-second street and Archer avenue, have returned from their western trip, much benefited, and having remained much longer than they originally intended. Mr. Coltzan is the owner of the Triangler Pharmacy and has been outbidden on the lease of his store by a former clerk, and in consequence will remove to the opposite side of the street.

The building on the corner of Fifty-fifth street and Lexington avenue, Hyde Park, used by the Chicago University for chemistry, was vacated recently, as the Kent Chemical Laboratory has been completed, and on Thursday evening, March 8th, was the scene of the first oratorical contest of the University of Chicago, to send delegates to the contest in Wisconsin in May. First and second prizes of \$5 and \$15, were awarded by Alexander H. Revell & Company.

Mr. Weck, of Austin, Ill., formerly with Oberman, of the north side, is now connected with Conrad & Co.'s new store in Kenwood, corner Forty-seventh and Lake avenue, which is expected soon to be opened. The floor of the store will be of marble mosaic. The soda apparatus is Lippincott's, and fine hardwood fixtures match the rest of the store. The store will certainly be in accord with its surroundings, as Kenwood is one of the most aristocratic localities of Chicago.

E. B. Macy's, Ewing avenue, South Chicago, was the scene of a dreadful catastrophe the other morning. From the doctor's office over his store ran a private telephone wire to his residence, and during the night this broke and rested on the trolley wire of the electric car line. It became charged, and, as it hung toward the ground, a dairyman's horse going by struck it and was instantly killed. The driver, getting down, struck the charged earth and received a severe shock, as did others, who with nippers and gloves were trying to get it down. Mr. Macy at last got the wire free. The horse literally had his life burned out of him.

DETROIT.

Detroit, March 24.—At last, the retail druggists have awakened to some of the enjoyments of this life and propose to have a banquet. All hands will be invited, but just when the event will occur has not yet been definitely decided upon. It will, however, occur in the very near future, if the efforts of the committee appointed by the retailers at their last meeting count for anything. There is nothing so productive of good fellowship, sociability and friendship as an entertainment of this kind.

Druggist F. W. R. Perry has recently received a number of letters from different parties out in the state informing him that one "Chas. Arnold," a canvasser, has taken orders from them and others in their vicinity, for a polishing iron and a recipe for a polishing compound, the latter being written upon his prescription blanks. The agent's scheme is to deliver the recipe upon the payment of \$2, with a promise to deliver the polishing iron in a few days, which, however, he fails to do. Mr. Perry says he never heard of the fellow and wonders how he got hold of his prescription blanks. He thinks he is a fraud.

George W. Wilner has purchased the drug store of C. B. Fuqua, Big Rapids.

Tibbs' drug store has been moved from 133 Monroe street, to 618 South Division street, Grand Rapids.

Waldron & Todd, druggists, Jackson, are having a part of the Hurd House fixed up for new quarters.

Nelson, Baker & Co. are building a two-story addition to their laboratory, to be used as a pill department.

Cornelius DeFree, formerly prescription clerk for George McDonald, Kalamazoo, has opened a new drug store at Holland.

P. S. Gould, a resident of Climax, is said to be the possessor of an iron mortar and pestle brought to America in the Mayflower.

The newspapers say a company capitalized at \$50,000, with \$35,000 paid in, has been organized to run a wholesale drug house at Manistee.

Burglars entered the drug store of Henry Haigh, 264 Jefferson avenue, recently, and purloined \$18 worth of cigars. It is thought boys did the job.

Burglars entered the drug store of Conrad Bros., Otsego, March 8th, securing some currency and a considerable quantity of perfumery and cigars.

W. A. Rudell and S. Zeller have purchased an interest in the drug store of V. R. Conway, Sault Ste. Marie. The firm will do business as Conway & Co.

John D. Muir and Albert Stonehouse, formerly with G. T. Haan & Co., Grand Rapids, have purchased the drug store of Scribner & Aldworth, located in that city.

M. L. Campbell now represents the Hazeltine & Perkins Drug Co., Grand Rapids, in Northern Michigan. Mr. Campbell was formerly engaged in the drug business at Leslie.

The Hupp & Pierce Pharmaceutical Company, of this city, is the name of a new manufacturing concern which recently filed articles of association. It has a capital stock of \$20,000, with \$2,000 paid in.

A can of ammonia in a freight car standing at Sarnia exploded recently with a terrific report and entirely destroyed a

carload of miscellaneous freight. The loss to the railroad company will amount to several hundred dollars.

W. H. Allen, Ph. C., lecturer in charge of the chemical laboratory, Department of Pharmacy, Detroit College of Medicine, has assumed charge of Farrand, Williams & Clark's new laboratory. Mr. Allen has had extensive experience in laboratory work both in this country and abroad.

C. C. Sherrard, lecturer on pharmacy in the Detroit College of Pharmacy, and chemist for F. Stearns & Co., met with a serious accident recently. In attempting to "make" the street car for home he was knocked over by a bicycle rider, sustaining a broken rib as the result of the collision.

Gustav Hentschel, a clerk in the employ of Thum Brothers & Schmidt, druggists, Grand Rapids, died recently from the poisonous effects, it is supposed, of overdoses of arsenic, iron and strychnine tablets which he had been taking for a tonic. He was 18 years of age, a Bohemian by birth and highly educated.

Chicanori Tomihira, a Japanese employed in F. Stearns & Co.'s laboratory, committed suicide March 2 by taking strychnine. Frederick Stearns brought Tomihira to this country about three years ago, and with the exception of a short time spent at Ann Arbor, he has been employed at the laboratory ever since. The dead man's father was a prominent army official when Mr. Stearns went to Japan and he carried a letter of introduction to him. Young Tomihira thus heard much of this country and expressed a desire to come here. He was very effeminate and was more like a girl than a boy. Mr. Stearns thinks there is no doubt but that the young man committed suicide, as the Japanese think suicide a noble death.

ST. LOUIS.

St. Louis, March 22.—There has been a general revival in country trade in the past two weeks. Some of the wholesale houses report a very gratifying improvement in trade, while others state that they are receiving a sufficiently large increase in orders to warrant the belief that there is a general renewal of trade confidences, and that the depression which held back the volume of business usually expected at the new year has about exhausted itself. The city retail trade continues fair, but there is not yet manifest the buoyancy which retailers would like to see. The slight revival in trade since February 1 is not sufficiently encouraging to invite visions of wealth. The cutter is still in the field, but there are those that entertain the opinion that his days are numbered, and chief among them is President Thomas Layton, of the St. Louis Apothecaries' Association, who thinks a gleam of light once more appears on the horizon.

The Inter-state Retail Druggists' League is still his pet idol, and, to use his own words, "It is the only organization, national in its character, ever started, having for its object the care of the financial interests of the retail druggists."

"The fields are full of associations for scientific pursuits," he says, "but we have but one Inter-state Retail Druggists' League."

Mr. Layton, in speaking on this subject, expresses his appreciation of the great aid extended to him while he was

President of the League by the pharmaceutical press.

John S. Mollitt was quite ill for several days at his family residence at Webster Groves.

David Kunkel is now with Adam Itothe, at 550 Olive street. He only recently returned to the city, having been at his old home in Ohio.

Alfred Grunfeld, of Grunfeld Bros., druggists at Albuquerque, N. M., was calling on the St. Louis trade a few days ago.

The St. Louis College of Pharmacy will hold its examinations on March 27 and the graduating exercises on April 19. The class will number about fifty.

The Lathordine Chemical Company of St. Louis has been organized with a capital of \$3,000, by Henry Toohy, S. P. Hartman, Homer Day, and others.

Dr. Muenich, who was with Meyer Bros. for many years, is now with the J. S. Merrell Drug Company. He is one of the best posted salesmen in St. Louis in handling the city trade.

Mayor C. P. Walbridge took his wife to Hot Springs a few days ago to improve her health. His honor will remain with her for three or four weeks in order to get a rest from his arduous duties.

The St. Louis Drug, Oil and Paint Association held its regular meeting and informal banquet at the Mercantile Club on Thursday night, March 15. A very interesting programme was carried out.

Adolph Finke will graduate from the St. Louis College of Pharmacy next month. He will continue with J. P. Tierney's pharmacy, in the LaCade Hotel block, where he is very popular with the trade.

In a Sunday morning paper a leading dry goods house announced "patent medicines sold only by us at 33-1-3 per cent less than you can buy them of your own druggist." This is a sample of the cutting which is demoralizing to the retail drug trade here.

Owing to continued ill health of Joseph P. Tierney, proprietor of the well-established pharmacy in the LaCade Hotel block, at Sixth and Chestnut streets, M. M. Tierney succeeds to the proprietorship. The business will be continued without any further change.

Dr. Heine Marks, superintendent of the city hospital, is just now being raked over the coals for violating the ethics of the profession. His offense is said to have been the giving to the reporter of a daily paper a professional account of some operations performed at the hospital.

N. Hayes, from Detroit, has been in the city introducing shares of stock of his million dollar Universal Trade Association to the St. Louis druggists. The money value of this stock appears to be based upon his ability to secure the adoption of his plan and the purchase of his labels by the proprietors.

Francis Hemm, professor of practical pharmacy in the St. Louis college, about a year ago lost a valuable Torsion balance from his laboratory. Silence and keen detective work have finally located the instrument and a long list of chemicals, of which the hope of return had long since been abandoned. No prosecution is likely to follow.

Some newspapers are proposing that there be a law to compel all patent medicine manufacturers to have their compounds regularly qualified pharmacists.

CINCINNATI.

Cincinnati, March 22.—James S. Burdall, the veteran wholesale druggist, who is now the United States appraiser at this port, tells some interesting things about whiskey. The placing on sale of 1,000 barrels of re-imported whiskey has evoked endless comment here, and much curiosity is expressed as to why domestic liquor is sent abroad. Mr. Burdall was asked why it was done, and his reply was that in a general way it is supposed to pay to do so. It adds to the cost, through freight both ways, storage and other expenses, also loss by leakage and evaporation. But there would have been some loss if not exported. It will be noticed the internal revenue tax does not accrue till it is reimported. It may be kept out two or three or more years, and the interest on the tax, say \$36 per barrel, is saved. When the article comes from the still it is worth about thirty cents a gallon, or \$12 per barrel. The interest account would stand, say on one barrel of forty gallons for three years at 6 per cent, \$6.48; cost of whiskey, new, \$12, for three years at 6 per cent, \$2.16; net gain in interest per barrel, \$4.32. But in addition to this the article increases in value each year at least twenty cents a gallon. The tax on the liquor when worth thirty cents a gallon is just as much as when it is worth \$1 or \$1.50 a gallon. The chief gain is in the added value or quality. It is said that the peculiar climate of Bermuda and also Bremen in Germany improves whiskeys and ages them rapidly. Probably the long sea voyage out and back, especially in sailing vessels, that keeps it well agitated, tends to eliminate the fusel oil, and thereby improves and mellows it.

Pure whiskey is at its best in about ten years. It can be tested by agitating a sample with ether. Re-imported whiskey that has three or four years age will, as a rule, have but a small quantity of fusel oil, though it may have other impurities. Medically, our American whiskey, when properly made, ripened and freed from impurities—the chief of which is fusel oil—is certainly preferable to foreign spirits or brandies. But new whiskeys and chemically-made imitations and compounds are simply slow poisons that should be avoided as deleterious to health and life. A safe rule is to avoid using it except administered by a physician, and then insist upon having it pure.

Otto E. Betz, the Eastern avenue druggist, was sued for \$5,000 damages in Judge Kurler's court a few days ago by Miss Anna Karsner, of the East End. The plaintiff alleged damage to her health by receiving something other than laudanum at the defendant's store in March, 1893. The claim of the defense was that Miss Karsner was an habitual user of opiates, and that she took an overdose, causing retching of the stomach, etc. The plaintiff admitted that she took the stuff in a mineral water bottle, mixed with water. The verdict was for the defendant.

The leading theme in local drug circles during the past few days has been the mysterious disappearance of William M. Arons, the well known bookkeeper of the Standard Drug Company. Arons failed to put in an appearance on the 10th inst., and it was then learned that the bookkeeper was not at home. His haunts around town were visited without glean-

ing any information about him. When his wife learned that he had wandered away she became prostrated with grief, and was taken to the home of her mother on Grandin Road, Walnut Hills. Mrs. Arons was kept in total ignorance of what was going on and all visitors and newspapers were kept away from her. Her mother and sister recalled with terror a conversation Arons and his wife had in their presence, in which the husband, speaking as though he had a premonition of his doom, said, "Pauline what would you do if I were to die—would you follow me?" To which she answered: "I swear I would not live another hour." Knowing their fondness for each other, her anxious relatives looked upon the denouement with dread. Arons' looks were found to be straight. Searching parties were formed and the Ohio river and the canal were drugged. Finally his hat was found on the bank of the canal, as was also an empty morphine vial. Portions of this stream were again drugged, and on the 21st the remains were found in a terrible state of decomposition. The deceased was evidently insane. Arons was an intimate friend of Ed Cheney, the traveling salesman for C. P. Calvert & Co., who drowned himself in the Ohio river about two years ago.

Dr. R. H. Weatherhead, the well known druggist at Twelfth and Vine streets, has been elected director in the Edison Electric Light Company.

George Budde, city salesman for the Stein Vogler Drug Company, made a flying business trip up in the state the first part of the present week.

It is said that Melninger's new drug store in Cumminsville is the finest pharmacy in Ohio. All the shelf bottles are incased behind plate-glass doors.

Charley Footmeyer, who is taking a course in medicine, is now in charge at the drug store at Sixth and Central avenue, which was made famous by his late uncle.

Ed Gray, the druggist at Fifth and Main streets, is seriously ill at his home with pneumonia. He is improving, however, and his physician says he will soon pass the danger line.

L. N. Berube, the Avondale druggist, who recently purchased the interest of his partner, is making alterations in his beautiful storeroom. He expects to put in new fixtures and a new front.

Albert Ross, who has been in the drug business at Ninth and Vine streets for several years past, and who recently became a benedict, has accepted a lucrative position in a leading pharmacy at Dayton, O.

Herman J. Schulte, a graduate of the Cincinnati College of Pharmacy, who for a number of years was identified with the drug business in this city, has just been appointed appraiser of merchandise at this port by President Cleveland.

The name of John Bauer, the druggist at Sycamore and Milton streets, has been used in connection with a position in the Board of Police Commissioners, recently made vacant by the resignation of Samuel Nieman, who is a candidate on the citizens' ticket for City Auditor.

Harry Griffith, the traveling drug salesman who was formerly with Otto Raubfuss & Co. and the Standard Drug Company, was in the city the major portion

of last week. Harry is now connected with a prominent jobbing house at Columbus, and his legion of friends will be glad to know that he is doing well.

A purple chicken is on exhibition at Vorkamp's drug store in St. Bernard. It is an imported fowl, and is attracting much attention on account of its peculiar color. Some people have been cruel enough to contend that the feathers of the fowl have been colored with Easter egg dye.

Dr. John C. Otis is making extensive alterations in his store at Sixth and Vine streets. The pharmacy has just been re-papered, and some new fixtures now adorn the front part of the establishment. The doctor has just purchased a new circular showcase, which is attracting some attention.

A son of C. P. Calvert, of the Standard Drug Company, is spoken of as the next chief of the fire department of Covington, Ky. Young Mr. Calvert formerly traveled for his father, but of late years has been engaged in newspaper work in this city. He is well known for a man of his years, and is universally popular with all classes.

Billy Hale says he is happy to be again connected with his first and only love—Hale, Justis & Co. For six months Billy was out of the firm, but his true worth was recognized, and on the 1st of last January he went back to the above named firm. He is one of the leading and most familiar figures to be seen at the Drug Exchange.

Henry Kessler, a bright young pharmacist and a nephew of Rudolph Kessler, the veteran druggist at the Jewish Hospital in Avondale, is now behind the prescription counter at F. Kinzback's pharmacy, corner of Walnut and Court streets. Henry recently passed a very creditable examination for pharmacist before the Ohio Board of Pharmacy.

Albert Meininger, the Cumminsville pharmacist who is said to have the finest drug store in the state, has been appointed a member of the Ohio Board of Pharmacy by Gov. McKinley to succeed John Weyer, the Fourth street druggist. The appointment gives general satisfaction among local druggists, as Meininger is one of the best equipped pharmacists in this city.

J. B. Hoveler, the Central avenue druggist, was sued before Squire Winkler on the 21st inst. by George Meyer, a former clerk, to recover \$4.35 for wages said to be due. Meyer recently left the employ of Hoveler, and for his wages received a check on the City Hall Bank. When the check was presented for payment it was returned marked "no funds." Hence the suit. The matter will doubtless be compromised.

There is a veritable craze among the young pharmacists of this city in regard to the study of medicine. "We have sixteen druggists in our junior class this year," said a member of the faculty at a leading medical college the other day. Two or three well known retailers, who are also physicians, are fitting up offices adjacent to their stores. They claim they are patterning after their brethren in the east.

At a recent banquet at the Burnet House, given by the Cincinnati Paint Club, a resolution was passed asking President Cleveland to appoint a new member of his Cabinet to be known as

Commissioner of Commerce. A petition will be sent to Washington bearing the names of the foremost paint manufacturers and dealers of this city, Dayton, Springfield and Columbus. The creation of this new office is thought by the paint men to be a necessity.

The druggists at this place are taking a lively interest in the spring election, and members of the craft will cast their votes as they never did before. The citizens' movement has caught a number of them, and they are casting aside party views and will vote and work for the new party. Quite a large number, however, will vote for the candidates of the old-time parties, and the son of a seventh son cannot possibly foretell the result of the coming battle of votes.

The warfare on the slot machines in drug stores and other places of business, which was mentioned in a former letter, has not yet been begun by Chief of Police Deitch. The flood of nickels and pennies still goes merrily on, and nearly all of the downtown pharmacists declare that they will retain counsel to fight the abolition of the stamp and envelope machines, which are regarded as great labor-saving devices. Ex-Judge Miller Outcalt has been retained by the manufacturers of the machines in the coming legal fight with the police department.

EVANSVILLE, IND.

Wilbur Morden is now acting in the capacity of city salesman for Chas. Leich & Co.

The Bomm Drug Co. opened March 1st with a complete new stock and fixtures of modern design.

Peter Geil, who is in the city department of Chas. Leich & Co.'s drug house, is nursing a glass arm.

G. W. Vandusen, an Evansville product, now a resident of Philadelphia, writes that he is soon to return to this city.

John Wytenbach, recently with Geo. W. Haynie, has taken charge of Bomm Drug Co.'s prescription department.

C. C. Finney will in the near future be found in more elaborate quarters, having purchased a plat of ground near the Air Line depot.

Ed H. Niehans, formerly with Ben J. Bussing, Seventh and Main streets, has taken a position with Chas. Haynie on upper Second street.

Wm. Legeman, for the past fifteen years in charge of Chas. Leich & Co.'s shipping department, has been ordered out on the road by his firm.

Plans are being drawn for the erection of a two-story brick business house in the West End, known as Independence, to be occupied by a new drug firm.

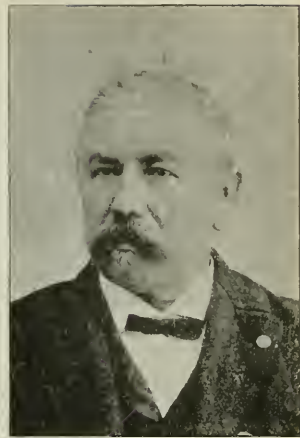
Ed. Geil has returned from his maiden trip in the interest of his firm, Chas. Leich & Co. He traveled in the states of Kentucky and Tennessee.

J. C. Mendenhall, who recently opened a neat pharmacy at the corner of Fourth and Oak streets, has taken the agency of Tichenor's Antiseptic for this locality.

Chas. F. Forster has begun the erection of his new store on outer Fulton avenue. When finished it will compare favorably with any of its kind in the city.

Henry Brinker, doing business at the corner of Virginie and Heidelberg avenue, has had the serious misfortune of losing his mother, who succumbed to an attack of pneumonia.

CLEVELAND.



DR. ADOLPHUS BILLHARDT.

The first appointee to the newly created consulate at Moscow, Russia, is a native of Saxony. He was educated at Leipzig and in 1858 emigrated to America, locating at Upper Sandusky, O., as a physician. He served in the civil war as a private, hospital steward and surgeon, was held captive in a southern prison, and in 1864 obtained his release, thereupon taking up his practice at Upper Sandusky. In 1866 he built a \$30,000 block and established his drug business. In the town of his adoption he is noted as an enterprising, public-spirited citizen; at large, as a worthy, honorable gentleman. As officer, founder, promoter, he is connected with the Weather Bureau, Wyandot Saengerbund, Findlay Harmonia, Upper Sandusky Euterpean Chorus Club, Upper Sandusky Mutual Gas Works, Masonry and G. A. R. business. He is a sexagenarian and has a large and interesting family. The drug business will be continued by his sons.

Cleveland, March 22.—The local option status which the Haskell bill purports to create in this state will swear up the same conditions as have manifested themselves in New England and elsewhere. In other words, it would tend to involve local option town druggists in knavish practices, which in time would rob the pharmaceutical profession of its good repute.

R. A. Vance, the eminent local practitioner, is dead.

The new drug store at Oberlin, O., is owned by H. F. Smith.

G. L. Hechler's upper Broadway store will be improved to the extent of \$600.

The Jarecki Chemical Co., of Sandusky, reports business good with increased facilities.

The chemical laboratory of Case School of Applied Science is one of the best in the world.

The Cleveland member of the state committee of unofficial formulae is W. F. Kuder.

Mrs. Susan C. Knoppenberger, of St. Mary's, as president of the Empress Oil Co., has assigned her estates.

There is now a gradual but sure regeneration in all branches of trade noticeable, and everyone feels relieved.

Charles H. Richards, assistant to Dr. J. A. Diemert, is about to open a new store at Cedar and Jessie streets.

The Euclid Oil Company, capital stock \$10,000, is a recent Cleveland corporation. Burglars entered C. McCormick & Co.'s drug store at Doylestown and secured \$50.

The examination results attained by the pupils of the C. S. P. will be published in the next number of the Era.

W. S. Ferris, formerly with the Crystal Pharmacy on St. Clair street, is now with E. R. Lane & Co., Euclid avenue.

The Danmiller Co., of Canton, has been sued at Kent by the food commissioner for selling impure cream of tartar.

Druggists note an increased demand for paregoric, due to one of those narcotic fads which periodically afflict some people.

There is an inceptive boom in the paint, oil and varnish trades. New signs of prosperity are seen everywhere, paint especially.

Nelson Abbott, of Lima, passed through here on his way to Kalamazoo, Mich., to look after his purchase, the Leighton Pharmacy.

The Trommer Malt Extract Co., of Fremont, will be voted a bonus by the municipal council with which to improve its works and facilities.

Mattison & Saltzman succeed George Spangler and H. C. Harman at Burbank, O. The two stores, as above indicated, will be consolidated.

Geo. W. Canfield, Trumbull, and E. L. McElroy, Knox, have been reappointed state inspectors of oil for first and second districts respectively.

C. H. Hildreth, the Euclid avenue druggist, is back at his post after a protracted illness. John M. Ressler, his efficient assistant, has resigned.

The store of the Lord's Pharmacy Co., Pearl and Church streets, was again visited by burglars. Six dollars and some rare coins were stolen.

Certain conditions would indicate that none of the medical registration bills now before the general assembly will become a law this session.

Martin Schmitt is the successor of Charles W. Sheekley, 636 Cedar avenue. Mr. Sheekley has purchased a farm and will go into poultry raising.

Daniel Myers, as a member of the Chamber of Commerce, suggests the conversion of the Erie street cemetery into a site for the new city hall.

The fire in the Waring block did only slight damage to C. F. Fenton's pharmacy, but its escape from going into ashes was a miracle, nevertheless.

Frank Woods, popular through his connection with the Trommer Malt Extract Co., of Fremont, O., has cast his lot with a Port Jervis, N. Y., druggist, Fred W. Mason.

Arch E. Fowler, traveling for Benton, Myers & Co., mourns the loss of a satchel, with contents, and an overcoat, which were stolen from him on an outgoing train.

Col. Allan T. Brinsmade, U. S. district attorney, has approved the bond of Dr. Adolph Billhardt, the Upper Sandusky druggist who was recently appointed consul to Moscow.

A bill recently introduced in the state legislature provides that the graduates of dental or pharmaceutical colleges holding a charter from Ohio shall be admitted to practice without examination.

Druggist Billhardt, of Upper Sandusky, is celebrating his consular honors. During March he banqueted the G. A. R.'s

Masons, and on the 28th entertained 300 invited guests with a musicale and ball.

Tud Howard, the popular assistant to C. F. Fenton, is negotiating for the purchase of the People's Drug and Prescription Store on Cedar avenue, Owen B. Hannan, formerly with Strong, Cobb & Co., proprietor.

A. Irving, representing E. S. Burnham & Co., manufacturers of "Burnham's Clam Bouillon" and other food preparations, is in the city arranging for the company's exhibit to be held in connection with the Pure Food Exhibit at Gray's Armory in April.

Dr. C. S. MacKenzie, who was for over forty years identified with Cleveland's drug business, died in New York at the age of 84. Mr. MacKenzie left Cleveland about five years ago to make his home with his daughter, Mrs. Ferguson, and it was at her home that he died.

While Cleveland's glycerin product is shipped everywhere, she has not succeeded in outdoing Cincinnati, which at one time was the glycerin market of the country. The Grasselli Chemical Co., the principal glycerin manufacturers of this city, came here from Cincinnati.

The police have succeeded in ferreting out the thieves who systematically despoiled the cigar counter in Julius W. Deutsch's pharmacy. The depredations had become so frequent, and the manner so obscure, Mr. Deutsch came high believing in a supernatural warning that smoking was both costly and wicked.

Pew druggists may be conversant with the "practice of medicine and surgery" clause of the Mossrovo medical bill, now before the House. Under it a person would have to go to a doctor for a prescription if he needed a corn salve or a liniment for a bruise, for even a druggist would be violating the law by "recommending" a remedy for either.

The removal of the home of the Era from our neighboring city, Detroit, has caused a sort of forlornness among the Cleveland trade. "We are about to lose a near and dear relative," mused a wholesaler; "really, I don't know what we should do without the Era, in our leisure moments. Good luck to the Era in its new stamping grounds; it deserves all there is obtainable on this earth."

Abbott's pharmacy bill has been reported back to the senate. It has the support of many druggists, especially from the country districts. The bill provides that three months shall be designated during which any person who has worked in a drug store for five years may be registered as a pharmacist without further examination. Louis C. Hopp was delegated by the C. P. A. to present the utter fallacy of the bill before the legislature, which he has done in a manner worthy of the cause. There is no danger of the bill being enacted if sound opinion prevails.

It is probably not generally known that the Ohio State Board of Pharmacy owes its origin to Cleveland enterprise. The incorporation charter dates back to April, 1880, and bears the signatures of the following Cleveland druggists and chemists: Sylvester S. West, Lewis C. Hopp, G. H. Fenner, Nathan Rosenwasser, Alfred Mayell and W. F. Spiehl.

Lewis C. Hopp, of the Mayell-Hopp Co., of this city, will answer all questions relating to matters of the board or bills now before the Legislature, or will direct you to the proper source.

KANSAS CITY.

Kansas City, Mo., March 22.—Judge Thayer has handed down a decision settling the dutiable value of cocaine. The Board of Appraisers of New York City appraised the duty at fifty cents per pound. The Secretary of the Treasury was of the opinion that it should be taxed at the rate of 25 per cent ad valorem, and he ordered collector Richard Dalton, of St. Louis, to take the matter into the federal court, which he did. Many depositions were taken, and there were many who gave the opinion that it should be classed as a medicinal compound, as alcohol was an ingredient. Judge Thayer, however, decided that the duty is chargeable at the rate of 25 per cent ad valorem, thereby sustaining the position taken by Secretary Carlisle.

H. C. Arnold has been visiting friends in Denver during the past few days.

Burglars broke into W. E. King's drug store last week and stole a lot of cigars.

Radford has bought the drug store at the corner of Ninth street and Prospect avenue.

G. B. Swindle, of Swindle Bros., Baltimore, has been selling glass bottles in Kansas City.

E. F. Manuel was here recently representing the Philadelphia Prepared Chalk & Toilet Company.

C. E. Foote, of the firm of Foote & Jenks, manufacturers of perfumes at Jackson, Mich., was here recently.

J. G. Alexander was in Kansas City a few days ago introducing the non-secret preparations of Smith, Hubbard & Co., Decatur, Ill.

A fire broke out in J. W. Donohoe's store, 322 East Twelfth street, but was discovered and put out before any damage was done.

L. G. Blakeslee was in Kansas City a few days ago with compound stearate zinc in many combinations, made by McKesson & Robbins, of New York.

T. O. Robertson, now in Love's old stand on Main street, south of Missouri avenue, is preparing to move into a store in the New Ridge building on Main street, south of the Junction.

Robert J. Holmes has sold his drug store at the corner of Eleventh and Walnut streets to Dr. Boteler, of St. Joseph, and will give his whole attention to the carbonating works.

Fire broke out behind the prescription case in H. Moulton & Co.'s store at the corner of Tenth street and Broadway a few nights ago. The firemen turned a stream of water into the store, doing \$1,000 damage.

The druggists in the west are making themselves heard upon the revision of the tariff, and though Senator Cockrell seems to ridicule them, his "humor" is having just the desired effect in giving publicity to their protest.

A. R. Gage has tendered his resignation as city druggist in charge of the free dispensary, to go into effect April 1, when he will take a position in A. R. Beck's drug store at the corner of Sixth and Main streets.

George P. Ladd, the veteran druggist who was for several years with H. C. Arnold, and who has lately been with G. Howard Willett, has been compelled, by ill-health, to retire to his country home at Thayer, Mo. It is feared that he has consumption.

W. C. Wilson, president of the New York and London Electric Association, makers of the actina preparations, was arrested a few days ago on the charge of embezzlement, preferred by J. H. Lee, an engraver. The arrest was the result of a dispute about a few dollars.

J. A. Gallagher has sold his retail drug store near the corner of Eleventh and Main streets to the Johnson Bros.' Drug Company, formerly of Joplin, Mo. The store has been on the market since Mr. Gallagher became a member of the Evans-Gallagher Drug Company. Mr. Beck will continue as head clerk.

The Kansas City Paint, Oil and Varnish Club held its annual meeting at the Coates House a few days ago and elected H. D. Cutler president; H. W. Evans, vice-president; T. J. E. Pain, secretary, and A. M. Hughes, treasurer. After the business meeting the members sat down to a delightful banquet, with J. M. Sewall, the retiring president, as toastmaster.

Druggist George Eysell and Henry C. Morrison, who was formerly a druggist, have secured the Republican nominations for seats in the Upper House of the city council. W. E. King, president of the Kansas City Pharmaceutical Association, and Druggist George P. Hardesty aspired for the Democratic nominations, but were defeated in the convention.

Mrs. Mattie A. Wilson, a dressmaker of 1416 Grand avenue, brought suit in the Circuit Court for \$10,000 damages against J. G. Wirthman, a druggist at the corner of Sixteenth street and Grand avenue. She alleges that last November the druggist sold to her daughter, Eva Barr, 16 years of age, an ounce of laudanum without a physician's prescription or even asking the girl for what she wanted the poison. Eva no sooner had the drug than she took the whole dose, and a stomach pump was in order. For the loss of her daughter's services while she was sick Mrs. Wilson asks damages.

Clinton G. Nickells, formerly a druggist in this city, has been arrested in Minneapolis, charged with being criminally intimate with the wife of Druggist Willis Graham, who lives in Minneapolis and owns a drug store at the corner of Twelfth and Main streets in Kansas City. Mrs. Graham was a daughter of the late A. L. Mason, a millionaire. She is seeking a divorce in the courts at Wahpeton, N. D., and Nickells is also suing for a divorce from his wife. Mr. Graham swore out the warrant for Nickells' arrest himself after the actions of the couple were the cause of much gossip.

THE SOUTHWEST.

T. C. Lauber & Co. have sold their drug store in Byron, Neb.

P. J. Kearns has bought D. M. Titus' drug store in Denver.

The drug store of J. W. Turner & Co., in Coln, Ia., has been sold.

C. F. Ord & Co., have succeeded Arthur S. Adlin at Cambridge, Ia.

J. W. Burkett has moved his store from Como to Rosanky, Tex.

E. Davis has sold his drug store at Fillmore, Mo., to W. J. Barnes.

The firm of Robb & Newberry at Hallettsville, Tex., has been dissolved.

James R. Douglas, St. Louis, has given a chattel mortgage for \$1700.

Mrs. T. R. Armstrong's store at Beaver Crossing, Neb., has been sold.

Mulhern & Co., have moved their stock from Council Bluffs to Orient, Ia.

Kelley & Donovan have succeeded Kelley & Pierce at New Point, Nev.

The pharmacy of Doolittle Bros. at Sabetha, Ks., was burned out March 8.

William McClelland has sold his drug store and restaurant at Crawfordsville, Ia.

H. T. Dennis has taken a partner named Peters in his business at Galt, Mo.

In a fire at Newport, Ark., A. Joyce's drug store was damaged to the extent of \$300.

J. W. Bozman, Argonia, Ks., has given chattel mortgages aggregating about \$1,100.

The drug store of W. R. Nichols & Co. at Beaver Crossing, Neb., has been closed.

The drug store of Lee & Hall at Adrian, Mo., was almost destroyed by fire a few days ago.

Howitt & Oxley, druggists at New Enid, Okla., have given S. H. Craig a bill of sale for \$975.

Ewald H. Erfilingsdorf has given a chattel mortgage for \$2,000 on his store in St. Louis.

Mr. Richards has joined with J. Ehlinger in the drug business at La Grange, Tex.

Allie Ingraham has given a chattel mortgage for \$1,800 on the drug store at Fairfield, Ia.

O. C. Tobey has given a chattel mortgage for \$800 on his stock and fixtures at Salina, Ks.

A store building owned by Druggist Whitney at Burnet, Tex., was burned a few days ago.

The Cole Drug Company, of Dayton, Ia., has been incorporated with a capital stock of \$25,000.

Samuel Newcomer has bought a half interest in B. J. Foxworthy's drug store at La Junta, Col.

J. N. Lawler has bought the interest of his partner, Mr. Magers, in the drug store at Cool, Mo.

The firm of Morrison & Son, at Ottawa, Ks., has been dissolved. A. Morrison continuing the business.

The Estrella Medicine Company was made homeless for a time by a fire in the Temple building in St. Louis.

A. L. Jones has sold his drug store in Waco, Tex., and B. White has moved his store from Waco to La Grange.

L. H. Luckhardt is moving into new quarters in Tarkio, Mo. The store fixtures throughout are of solid oak, and the store is one of the prettiest in Northwestern Missouri.

The Labordine Chemical Company, of St. Louis, has been incorporated with a capital of \$20,000. Among the incorporators are C. B. Wonderly, A. B. Silverton and Emily F. Silverton.

The assignee of the Pacific Manufacturing Company in St. Louis has been ordered to accept the bid of \$525.50 made for the assets of the defunct concern by the Prickley Ash Bitters Company.

Shane's drug and jewelry store at McCune, Ks., was entered by burglars, who blew open the safe and stole \$1,000 worth of jewelry. They stole sixty new watches and one worth \$175, which had been left for repairs.

Dr. R. T. Miller, a druggist and manufacturer of proprietary medicines at Sedalia, Mo., has made an assignment. The

assets will not cover the indebtedness. Dr. Miller was engaged in business in Sedalia for thirty-five years.

George Gilbert Griffith, a young druggist at Des Moines, Ia., committed suicide by taking thirty grains of morphine March 13. He was despondent and probably half insane. He went to Des Moines from his home in Montezuma about three years ago, and at first went to work in Alfred Hammer's drug store, and a year ago went to the drug store of John Landholm.

Dr. S. M. McAnnally, a druggist at Marble Hill, Mo., was attacked by the Marble Hill Press for selling liquor. The doctor, who is 60 years old, met Thomas Allen, the editor, who is a stout fellow of 22, and whipped him thoroughly with a cowhide, then went before a justice and paid a fine of \$1 and costs. He will bring an action for libel against Allen and the W. C. T. U., who, it is alleged, inspired the articles.

C. R. Hulse & Co., druggists at Leavenworth, Ks., failed March 13. They gave eleven chattel mortgages on their stock and fixtures to secure claims amounting to \$323.96, and George A. Eddy, of Leavenworth, and the Evans-Gallagher Drug Company, of Kansas City, were put in possession, their claims amounting to about \$2,500. The failure was brought about by a suit filed against the firm by a St. Joseph man to recover \$820.

PEORIA, ILL.

Charles Rehuss was married to Miss Cora Porter at Washington Court House, O.

Peter Bourscheidt, having been in business for the requisite number of years without any perceptible vacation, thinks of taking a summer trip to Germany.

John F. Bush, chiefly known as "Dick," who shows himself every morning at the retail stores, for Colburn, Birks & Co., is sick. Grip. Albert Gillig does the honors for him now. A speedy recovery is wished by all who know him.

The Ryan Drug Co. is the successor to Jos. Wolf's pharmacy on South Adams street. Mr. Ryan is the manager and hails from Chicago, a graduate of the Illinois College. Julius Ulrich will be the assistant prescription clerk.

In the western part of the city are two druggists who have their rivalry more or less. Not long ago one of them issued a circular stating the excellent quality of his sarsaparilla, and agreed to give, up to certain date, a box of liver pills with each bottle purchased. Now the other one is going to give a package of toilet paper as a souvenir.

An unusual feature presented itself on the local pharmaceutical horizon lately in the shape of a dry goods house coming out in full blast with a large list of patent medicines, of the popular sort, at a great cut. As it happens to be a store not very well known and in a locality more or less out of the way it does not cut much of a dash so far, but looks very threatening. It seems as though the patent medicine evil is bound to come down and be only a means to catch suckers for the other stores. The retail association held a meeting over the matter, and came to the conclusion that if left alone it would die a natural death! Rather risky.

FROM THE SOUTH.

F. McTorkle, Chattanooga, Tenn., has failed.

W. E. Brown has opened a new store at Wallbrook, Md.

Brown & Co. are successors to M. C. Brown, Gainesville, Ga.

Jones & Cromwell, Florence, Ala., are succeeded by Wm. Jones.

W. S. Prather, Harlem, Ga., has gone into the bottling business.

E. E. Dixon, Gainesville, Ga., is succeeded by Dixon & Couch.

P. R. Holt, Deatur, Ga., is succeeded by Holleyman's pharmacy.

J. M. Duncan has purchased the Eagle Drug Store, Hillsboro, Tex.

W. P. Passmore, Hot Springs, Ark., has sold out to the Lower Drug Co.

A. E. Krosling has purchased the Lankford pharmacy at Houston, Tex.

W. T. Brooker, of Coleman City, Tex., has opened a store at Rogers, Tex.

Reese & Whitehead, Rome, Ga., have made an assignment to A. B. S. Mosely.

D. C. Curtis & Co. is the style of a new firm at 126 Deatur street, Atlanta.

J. C. Means has opened a very handsome store at 423 Main street, Natchez, Miss.

Robert Gibson succeeds Dr. J. P. Gibson, Shepherdstown, W. Va., who died a short time ago.

The U. P. M. Clark Drug Co., Davis, W. Va., has been incorporated with a capital stock of \$10,000.

Sexauer Bros., Wheeling, W. Va., have gone into business in the store formerly occupied by J. D. Van Law.

W. H. Robinson, corner Georgia avenue and Pryor street, Atlanta, has sold his business to J. W. Westmoreland & Co.

Tudor & Adams, Richmond, Ky., are succeeded by Mr. Hagan, a former partner of Powers & Hagan, of the same town.

N. J. Hatham, druggist at 117 West Mitchell street, Atlanta, committed suicide on March 9 by taking too much alcohol.

Frank Smith, who for years was with Dr. H. Baer, and later with H. Plenge, both of Charleston, S. C., has gone into business for himself.

The building and contents of the Mobile Drug Co., on St. Francis street, Mobile, Ala., were totally destroyed by fire the night of March 16.

The Lamar & Rankin Drug Co., Atlanta, Ga., have sent a petition to Senator Gordon protesting against the alcohol provision of the tariff bill.

The M. A. Theford Medicine Co. have entered suit against D. W. Curry & Co., of Rome, Ga., wholesale and retail druggists, for \$2,000, claiming that they have been selling liver medicine and black draught illegally.

The graduating exercises of the Atlanta College of Pharmacy was held at the Grand Opera House, March 6, with those of the Atlanta Medical College and the following had the degree conferred upon them: R. C. Hood, O. B. Hertzog and A. L. Moody.

The Spencer Medicine Co., Chattanooga, Tenn., have given a deed of trust, naming G. N. Henson, trustee, the president of the Citizens' Bank & Trust Co., their main creditors. By careful management their incumbrances can be removed, their assets being about \$50,000 and liabilities only \$11,585.

PACIFIC COAST.

A Chinese druggist named He Que died at Marysville, Cal., of apoplexy.

The Sheriff is in possession of the Hall Drug Co. store at Port Angeles, Wash.

McKnab's drug store at Spokane, Wash., was destroyed by fire a few evenings ago.

A meeting of the California Northern Medical Society was held on the 13th at Woodland.

The Washington Medical Association will hold its fifth annual meeting at Tacoma, May 21st.

E. D. Cutter, of San Jacinto, Cal., has opened a branch store at Moreno. Ward McKim is in charge of the Moreno branch.

Dr. Via's drug store, at Forest Grove, Or., was entered the other night by breaking a door casing, and some whiskey, wine and cigars taken. Two boys were found to be the guilty parties.

The Fresno County Medical Society held a meeting at which the subject of diphtheria was discussed at considerable length. Dr. W. L. Beebe, of St. Cloud, Minn., was an invited guest at the meeting.

The City drug store at Jacksonville, Or., has published a card in the local newspapers calling upon patrons to settle up.

Mayor Ellert, a druggist on Kearney street, San Francisco, has retired from the business in order to practice law. The purchaser of his drug store is Wm. B. Kirk, who has been in the place for a number of years.

The Garten Gold Cure Company has commenced an action in the Superior Court to restrain C. M. Way and S. M. Terrill from engaging in the business of curing coppers by maintaining an institution called the "Sacramento Gold Cure."

The drug firm of Hendricks & Reese, of Snohrough, Wash., are in a quarrel among themselves. A receiver was applied for but Judge Denny refused to grant the petition and has ordered an accounting between the partners and it is proposed to sever their community goods and separate.

There is a Chinese doctor holding forth at Redlands, Cal., who seems to be exciting a good deal of criticism among his white brethren who do not appreciate the honor of having a Mongolian professional in their midst. It is said the Chinese has no regular diploma or license to practice medicine.

A. C. Barnell, in behalf of the Redington Drug Co., of San Francisco, has caused an attachment to be issued against B. F. Springsteen, the druggist at 122 Ellis street, to commence a suit of \$1,054 due to goods delivered. Mr. Springsteen was formerly a prominent druggist in Napa City, Cal. He came to San Francisco a few years ago and located at the present site. Last fall he made a trip east and has not yet returned. He is supposed to be in Kansas City. During his absence his mother and her two daughters have located in San Francisco and taken up temporary residence in the rear of the store. A clash of authority arose between Mrs. Springsteen and Mr. Collins, the gentleman left in charge of the store, since which time business has been neglected and hence the attachment.

MICHIGAN UNIVERSITY NOTES.

Although a little late, we announce the gift by A. S. Parker, Ph. C., '79, of a balance for the prescription department.

Three beautiful large bottles of crude and pure glycerine were given to the school by the Gordon Chemical Co., Cincinnati, Ohio.

A large lump of "calcite," or crude nitrate of soda from Taropoca, Ch'ill, has been placed in the museum by S. M. Harris, of Moreton Farm, N. Y.

Class day will be Wednesday, June 27th, and in the afternoon the alumni banquet will be held. Everyone is interested and the indications are very promising for a fine time.

Any visitor last week to the portion of pharmacy building occupied by the senior pharmacists, could not have failed to notice that something unusual was on tapis; a good deal of quiet consultation was going on between the members of the class. The students gathered together in knots of three or four and each fished the actual interest felt.

Among the subjects of investigation to be done for graduation this year, in the School of Pharmacy, the methods of the new Pharmacopoeia will receive a good share of the work. It is hoped that some more exact work upon assay methods may be obtained. It is desirable to so divide the labor as to avoid unfinished results. Among the assay methods, there are quite a number of distinct factors that require a closer determination than has been made. Among other topics for investigation are an analytical inquiry into lard oil and its uses in pharmacy; a microscopical study of *Clusia maculata*; a comparative microscopical study of *belladonna* root and *scopolia*; the haemoglobins of the market, and others.

The Eberbach Drug & Chemical Co. have of late been making very practical and interesting displays of crude drugs and the finished products. A short time since the important medicinal leaves were heaped upon white papers and arranged on shelves at the sides and on the floor of the window. Later, about 20 of the gums, gum-resins, resins and balsams were neatly arranged and labeled, and elicited much attention and admiration. Their last display was somewhat suggestive of Easter and consisted of logwood, red saunders, and fustic; aniline colors in beautiful crystals, and many eggs dyed with colors of their own manufacture. This kind of advertising is appreciated and redounds to the credit of the firm.

The time had arrived at last for the selection of class-day performers. Unusual preparations have been made for the celebration of the time-honored custom of holding class day, and everyone is enthusiastic in making it as enjoyable and memorable as possible. In order to do this, it was recognized by all that the most representative members of the class should be upon the programme. It is but natural that the ideas for fitness of the various candidates should vary; that variation was the probable cause of the consultation and discussion mentioned above. The result of the election is as follows: Salutatorian, C. O. Topping, of Fenton; historian, James C. McGregor, of Elmhurst; poet, James Seymour, of Ann Arbor; prophetess, Miss Grace McNoah, of Ann Arbor; vaudeictorian, Chas. H. Williams, of Adrian.

PHARMACEUTICAL ASSOCIATIONS.

The American Medical Association will meet in San Francisco June 5th. The committee of arrangements has secured Assembly Hall for the general meeting and the Palace Hotel, corner Market and Montgomery streets, for the headquarters of the association. A registration room has already been opened for work in "Marble Hall," and "Parlor A" has been thrown open for committee work. Post office, section K, is also located in the Palace Hotel, where members can receive mail matter by having it so addressed. Arrangements have been made with the leading hotels for special rates, etc. Other information may be obtained by addressing R. H. Plummer, chairman, 622 Mission street, San Francisco, Cal.

Iowa State Pharmaceutical Association met in annual session at Des Moines, March 13 and 14, President Milo Ward in the chair. Reports of the secretary, treasurer and chairmen of committees occupied the first session. W. H. Torbert, of Dubuque, chairman of the legislative committee, offered a report which excited much discussion.

The following officers were elected for the ensuing year:

President—Milo Ward, Des Moines.
 Vice-Presidents—Mrs. S. C. Collins, Garner; E. M. Burns, Mason City; W. B. Elliott, Knoxville.

Secretary—Suel Spaulding, Indianola.
 Treasurer—J. B. Webb, DeWitt.

Professor Sherman R. Macy, of Highland Park College of Pharmacy, read a paper on "Pharmaceutical Education." A. M. Ruetter, of Dubuque, gave an interesting paper on "Assay of Tea." J. H. Harrison, of Davenport, spoke on the "Pharmacy Department of the State University." J. W. Ballard, of Davenport, read some sound logic on "Practical Pharmacy."

Dr. Gleim, of Des Moines, who has been in the drug business since 1833, was introduced, and by request took a seat by the president.

Mrs. Rosa Upson, who has been secretary since 1884, and who now retires, was made the recipient of many compliments, and a committee was appointed to draft resolutions of appreciation and to procure a suitable souvenir for Mrs. Upson. The next meeting will be held at Storm Lake in June, 1895.

St. Louis Paint, Oil and Drug Club.—The March meeting was held on the evening of the 15th inst., at the Mercantile Club. President Daugherty occupied the chair, with an attendance of twenty-eight. The committee on restrictive laws against corporations reported through Chairman O. H. Greene, that they were placing themselves in communication with all the other trade organizations of the city, and the prospects were that good progress would be reported at the next meeting.

The following communication was read from the Paint Club of Philadelphia:

"Whereas, Conclusive evidence has been brought to this club of the pernicious practice of salesmen and other employes being approached with a view to engagement by competing houses in our trade; therefore be it

"Resolved, That the Philadelphia Paint Club condemns the practice as unmercantile and detrimental to the best interests of all concerned; and be it further

"Resolved, That we bring the subject to the attention of the next meeting of the National Association."

In the discussion that ensued the general opinion was expressed that the members of this organization had no complaint of this nature to make. Nevertheless, it was a subject that should be called to the attention of the next meeting of the National Association, and the club so voted.

At the conclusion of the business meeting, the president introduced Mr. J. B. Follett, prominent in building association affairs in St. Louis, who gave an interesting address on "Money," illustrated by diagrams on a black-board. The address was a strong one in favor of the issuing of fiat money by the government as the necessities of the people seemed to demand.

At the conclusion of Mr. Follett's address, the unanimous thanks of the club were given him, and adjournment was made at a late hour.

Kansas City Paint, Oil and Varnish Club, on March 8th elected H. D. Cutter, president, H. W. Evans, vice-president, A. M. Hughes, treasurer, and Thos. Pain, secretary.

BOARDS OF PHARMACY.

The North Dakota Board of Pharmacy met at the "Metropole," Fargo, March 14th and 15th. There were twelve applicants, seven of whom passed a satisfactory examination, viz.: William Smith, Willow City; E. T. Haglund, Little Falls, Minn.; S. John Erickson, Hillsboro; J. W. Lucas, Bismarck; E. D. Holmes, Havana; R. K. Sattler, Michigan City, and J. J. Keen, Wahpeton. The following licentiates of other state boards were registered without examinations: G. O. Bundy, Emorado; R. A. Brackett, Fargo; C. F. Sayer, Neche, and J. H. Long, Hatton. Seventeen assistants were registered.

Kansas Board of Pharmacy.—The first quarterly meeting was held at Fort Scott March 7. Thirty-five applicants appeared, of which number the following were granted certificates as

Registered pharmacists—Thos. Bailey, Independence; F. W. Butler, Yates Center; J. W. Beasley, Carbondale; L. Colvin, Wichita; A. L. Dyer, Wichita; E. J. Fish, Sedan; H. A. Harmon, Phillipsburg; D. B. Hickey, Chanute; Leon Johnson, Summerfield; W. C. Laughlin, Hanover; C. L. McAdams, Wichita; J. E. Maxwell, Oswego; H. M. Ochiltree, Haddam; W. B. Roche, Genesee; G. W. Rice, Ashland; Ross A. Smith, Hill City; R. S. Treat, Hutchinson; E. B. Vanness, Mound City.

As assistants—C. C. Moore, Galena; G. L. Blatchley, Fort Scott; Ed. Brewer, Peabody; E. A. Laudevehkamp, Leavenworth; F. Orloff, Atchison; D. Phillips, Concordia; W. D. Benham, Pleasanton; J. L. Carter, Emporia.

The next meeting will be held at Hutchinson, June 6. H. W. Mehl, secretary, Leavenworth.

South Carolina Board of Pharmacy.—At the last session of the legislature some important amendments were made to the charter of the state association. Physicians are now required to stand an examination in order to procure a pharmaceutical license. The charter was amended in the matter of the State Board of Examiners, which now elects six members (pharmacists), four from the city of Charleston, and two from the interior of the state, to serve, respectively, one, two, three, four, five and six years,

and hereafter there will be elected one member to fill the vacancy every year. Examinations to be held every four months, and it is the intention of the board to hold examinations in different parts of the state. The new board is comprised of E. S. Burnham, chairman, Charleston; A. A. Kroeg, Charleston; Henry Plenge, Charleston; R. B. Loryea, Manning; O. E. Thomas, Columbia; H. W. Hummel, Charleston, secretary. The first meeting of the board under the new regime was held in Charleston March 6th, when four applicants presented themselves for examination. The following passed and were awarded licenses: Wm. Royal Rouse, Geo. H. Thompson, W. J. Prince, all of Charleston. The percentages gained ranged from 72.2-3 to 82.1-6 per cent. The next meeting of the board is expected to be held in Columbia.

Wisconsin Board of Pharmacy met at Green Bay, March 20. The following were granted registration without examination, they having passed examination in other states: I. K. Fox, Marinette, from Michigan; John G. Kissel, Olenwood, from Minnesota; Henry B. Cate, Stephens Point, from Illinois; graduate certificates to H. A. Peters, Oconomowoc, he having passed examination in 1892 at the Department of Pharmacy, State University.

At the examination there were thirty-nine applicants. Of this number the following received licentiate certificates: J. H. A. Schultz, Milwaukee; C. H. Law, Green Bay; J. H. Look, Sheboygan; W. T. Boulter, Green Bay; E. S. Flemming, Eau Claire; C. A. Groffman, Manitowoc; F. G. Tanck, Watertown; John F. Clarke, West Superior; C. M. Smith, Oconomowoc; T. E. Pritchard, Fond du Lac; H. Lichtenwalner, Monroe; A. W. Brennecke, Racine; Henry Hillmantle, Milwaukee.

Assistant certificates were granted to Kate McPhail, Osseo; A. T. E. Benn, Colby; W. H. Barnes, Milwaukee; D. H. Tennant, Janesville; S. Boulanger, Grand Rapids; S. J. Coulter, Marinette; W. H. Evans, River Falls; Peter Venenia, Marquette; J. T. Vecke, Milwaukee; J. T. Hayden, Butternut; C. W. Trickle, Brownstown; S. H. Brownlee, Ellsworth; A. Schaght, Milwaukee; Frank Piszczek, Milwaukee; A. E. Marquart, Sauk City; G. M. Breakley, Alma Center; O. B. Olsen, Marinette; R. S. Williams, Martell. Eight were rejected.

Henry C. Schranck, of Milwaukee, was elected president of the board and E. B. Helmstret, Janesville, elected secretary and treasurer for 1894-5, his thirteenth election to this office. Meetings for examinations were fixed as follows: June 13, Madison; August 17, Racine; November 14, Milwaukee; January, 1895, Milwaukee; March, 1895, Baraboo. The secretary was directed to visit all parts of the state where complaints are made of violation of the law, and that all cases of same be pushed.

The Atlanta College of Pharmacy held its annual commencement on Tuesday, March 6th, at the Grand Opera House. There were three graduates, O. B. Hartzog, of South Carolina; A. R. Moody, of Anniston, Alabama, and R. C. Hood, of Harmony Grove, Ga. The opera house was crowded, about 2,000 people being in the audience. Col. N. J. Hammond, president of the board of trustees, delivered the diplomas. Every indication points to full classes next year, a large number having already promised attendance.

CORRESPONDENCE.

We accept no responsibility for the views and utterances of our correspondents. Contributions must carry full name and address of the writers, which, however, will not be published, if so requested. Copy should reach us ten days in advance of date of issue.

DIDN'T NEED IT.

The following interesting reply was returned to a circular letter soliciting subscriptions to a certain medical Journal. It is sent us by Mr. C. L. Katz, Terre Haute, Ind.:

Terre Haute, Minn, February 21, 1894.

Your copy of the — Journal came, and the letter to—askin me to send fifty cents and git it for a year. I don't need no journals. When I git a tuff case I go off inter sum scrip place and tell the lord all about it and wate for him to put inter my minde what ter do. Thats bettern journals and nsyklopedes and such. If we hed more lord trustin doctors and less colleges weed fare better. The lord noes morn all the doctors and if we go to him for noledge it ill be bettern journals.

Fraternally in the lord,

A CHRISTIAN DOCTOR.

P. S.—I've practisid medisen morn fifty yeers. Yore ken publish this letter if you want ter.

THE TAX ON ALCOHOL.

To the Editor:

Will you permit me to make a suggestion to the druggists of the country through the columns of your Journal? If prompt action is taken, I am confident it will have a good effect.

Recently Mr. W. H. Torbert, chairman of the Iowa committee on legislation, sent out a circular requesting druggists to write their senators at Washington protesting against the proposed increase in the tax on alcohol. Instead of writing a personal letter to each of the senators from our state, I prepared two petitions and sent one to each of our senators. The petitions were as follows:

"Hon. ————

"United States Senate,
"Dear Sir,—The undersigned druggists, residents of the city and county of Lebanon, Pa., respectfully request you to use your influence to prevent a further increase in the tax on spirits. Alcohol, one of these products, enters largely into the manufacture of all medicines and is used in the arts and manufactures. It now pays a tax of about \$1.70 per gallon, fully five times its actual value, and a further increase is wholly unnecessary and will be burdensome to those who are compelled to use medicines.

We pray you, therefore, to endeavor to prevent a further increase in this tax."

To these two petitions I secured the signatures of all the druggists in the city and a few from the country who were easily reached, and sent them to our senators, and two days after received a letter from Senator Cameron saying the suggestions contained therein would receive his earnest attention when the bill came before the senate.

I am persuaded that if the druggists of the country will act promptly and either write individual letters or send petitions similar to the above to the senators from their states, an increase in the alcohol tax can be prevented. Move at once. There is no time to lose, as the bill is now pending in the senate.

J. H. REDSECKER.

Lebanon, Pa., March 21, 1894.

THE MICROSCOPE.

To the Editor:

With one exception the Era contains information for almost all the wants of the retail druggist. This exception, a very important one, is microscopy.

Every progressive druggist should be the possessor of a good compound microscope and use it almost daily. It is indispensable in the identification of the various drugs and chemicals of which his stock in trade consists, and the adulterations too often found in them.

The pleasure and knowledge derived from it are not confined to these, but embraces every material thing with which we come in contact. The botanist can do little without it; the geologist in his final work depends upon it; and the physician finds it of the utmost importance in many diagnoses. In fact, its uses are almost infinite and of the greatest importance.

We are very desirous that the Era give this subject space and encourage communications upon it, not of a highly technical character, but of use in every day work on common objects.

Those commencing or contemplating doing so can derive much assistance from an interchange of ideas. Those of riper experience can give much valuable information, and incidentally gain some. Let us hear from the interested through the Era.

A. F. M.

A FEW WORDS ABOUT PATENTS.

To the Editor:

Having studied the modern pharmaceutical chestnut known as the cut-rate problem for some time, I venture to offer a few remarks to your readers. First of all, has the proprietor of any widely advertised nostrum ever really tried to protect the retail druggist? Plans innumerable have been suggested, most of them "bluffs" calculated to deceive the druggist and keep him quiet. It is a very easy matter for the proprietors to protect us if they want to. The U. T. A. or some similar plan would work excellently. The package thus marked could be traced at once. But any plan is useless as long as the manufacturers are not sincere. Where do the large department stores get their supply of patents and how are they enabled to sell them in many instances for far less than they cost the druggist? By allowing cutters to handle their goods, they sell more than in the legitimate trade simply handled them. The patent men are simply trying to play two fiddles with one bow.

Do you think they care two whoops in purgatory about our welfare? Not a bit of it. They care no more for us than the high tariff millionaire does for his fifty-cent-a-day "protected" laborer. Some time ago the agent for a certain patent told me openly that he wanted to sell all the goods he could and did not care whom he sold to. He even went so far as to say that to cut on his goods was just such an advertisement as he wanted. Who is it that calls you a liar, a pirate or a thief?

The druggist must work out his own salvation. Buck the patents for all you're worth. Don't display any packages or bottles of their compounds. The first free advertising you give a patent is putting it on your front shelves. Do not allow your name to be used or in any way connected with their ads, and never distribute their almanacs or similar matter. "Make them yourself." Put up a

good line of harmless but effectual remedies. Don't claim that your cough medicine will grow a new lung or that your liniment will grow a new limb.

Such things as a cough syrup or a toilet cream should also be put up in small sample bottles, and enclose one in each package of similar goods sold. It you have good formulae and packages nicely put up this plan will most always have the desired effect. Item—Remember that in popularizing patents you are cutting your own throat, financially speaking, and the sooner you awaken from your dream of "plans" and get to work in earnest the better it will be for you and your family.

March 7, 1894

A RETAILER.

WHAT THE DRUGGIST MUST KNOW.

- 3 cts of Gumrubic.
- 2 cts of Spirm.
- Pleese Sende Me 10 Cents Wirth of Gume Opapm.
- 10 cts worth of Capshin plaster.
- 10 cts worth of Tulu.
- Half a pound Sulfar.
- Cultar pound salt peator.
- 1 OunCe of Antimonia.
- 2 OunCes of Innlbreak.
- 1 pound of GinGer.
- Half pound LeKris root.
- 1 OunCe of Anisce Seade.
- Argot, 25 cents worth.
- Gross of Supplement.
- 5 cents worth of camille blows.
- 5 cents worth of golden ceel roots.
- Acme carage wine palnt.
- Orange dimons dye.
- Equil parts Hartshorn and Lavlinder.
- 2 ozs buchulle.
- 2 drams Uva Urisa.
- 2 drams spirrits niter. One half tea-cup Sugar. Desolv and ad.
- One half pint thirpentine.
- One ounce cloriform.
- One ounce muriatic asid.
- One ounce anonia.
- Give my Girl one dolar bottle of shal-owes consunsm cure.
- 5 cents worth of Gosmeline.
- 1 ounce of Wichasel.
- 1 ounce of Sassaparilla.
- 1 pint Borbon whiskey.
- Send 10 cents too gr Quinine pills.
- Dr Climore Swamp Root.
- A box of Heric pills.
- 1 lb of Rasom.
- One half pint Alcahah.
- 1 oz. Mandrac Root.
- 1 oz Dandallion Root.
- 1 oz bucha leavs.
- 2 oz Magunda Pich.
- 1 oz Campher gum.
- 1 Pt Linsaad oil.
- 1 lb of black antimonia.
- 1 lb of Epseum Salts.
- One fourth lb of Blood Root.
- 1 lb of Fenegreek.
- 2 oz Gensen.
- 2 oz Hipoisite of Soda.

Mr — Sende Me One haught on Ounc of Oapan. donte leet the Boy seccay what you dow up, and send me 5 cts wirth of winter. G. L. B.

- Bracle Ac. B.
- Asitate of Potash, one dram.
- Pleas send me half pint Hollon gin and one oz Wondrn milk weed.
- Salselle Acid.
- 1 stick seeling wacks.
- Chamberlains diarie cure.
- PinKrat to color Oke.
- Murrat Assid.

F. E. HERRICK, Groton, N. Y.



GILMAN BROS., BOSTON.

JOHN A. GILMAN.

GORHAM D. GILMAN.

IN an unostentatious manner characteristic of the old house of Gilman Brothers, of Boston, a change of quarters has lately been made from Washington street to Franklin street, and the event turns one's thoughts retrospectively.

The firm originally consisted of Gorham D., John A. and Samuel K. Gilman, who began business, under the firm name of Gilman Brothers, in May, 1863, having purchased the drug department of Messrs. James R. Nichols & Co. in the store located at 109 Milk street. There they continued business until the disastrous fire of Saturday night, November 2, 1872, which swept away the building occupied by them in the general destruction of that part of the city. The junior partner was the only member of the firm in town at that time, and superintended the removal of a small part of the stock of goods (all that was possible) to Boston Common, where it remained until new accommodations could be secured. Arrangements were made at once for opening a store on Custom House street, and the firm was enabled to fill orders for goods on the Monday following, so that there was no serious interruption to business on account of the fire, although the financial loss in consequence was large. After a year and a half spent on Custom House street the firm secured the store No. 307 Washington street, in the spring of '74, where for nearly twenty years they conducted a constantly increasing business. In December, 1879, the junior member of the firm died, and the business has since been carried on by the two older brothers. By strict attention

to business and the personal care taken in the selection of goods, they have won the confidence of their patrons and a reputation for fair dealing and the purity of goods sold by them, that is second to that of no other house in New England.

In taking possession of the large and commodious store at 50 Franklin street they have secured one of the best and most central locations in the city (in close proximity to the main offices of the five largest express companies doing business in New England). This affords them much more advantageous opportunity for the transaction of the wholesale drug and manufacturing business, to which they now give their exclusive attention, having discontinued the retail department. The counting-room is especially light, airy and convenient for transaction of business. Their workrooms may fairly be said to be models of convenience and utilization of space, occupying three floors in the new building, which, together with their large accommodations for the manufacturing department and storage of goods at No. 42 India street, furnish ample facilities and place them in a position to fill promptly all orders which are sent to them.

Gorham D. Gilman was born in Hallowell, Me. He attended the public schools and academy of the town, and later acted as clerk in a store, thus obtaining an experience and education which has proved valuable in the later years of his career.

Leaving home in the pursuit of business, he was for twenty years a resident in the Hawaiian Islands, engaged in gen-

eral mercantile pursuits. While there he became well versed in the island language and enjoyed the confidence of the successive kings, and of the common people, and up to the present time maintains very close relations with the affairs transpiring in the island kingdom.

He has received three honorable decorations for "services rendered" from the royalty of those islands.

He served in both branches of the city government of the City of Newton, where he resides, for three years. In 1889 he entered the legislature of the Commonwealth of Massachusetts, as a member of the House of Representatives, and was re-elected to serve the second term in that body in '90. In 1891 and '92 he represented in the Senate chamber the senatorial district in which he lives. He is a member of several Christian, philanthropic and social organizations.

John A. Gilman also was born in Hallowell, Me., and in 1853 entered the retail business in that city as clerk, where he remained until 1858. He then purchased the store where he had been employed and began business under his own name, continuing it until the spring of 1863. Being desirous of finding a larger sphere he had several conversations, on his trips to Boston to purchase goods, with Mr. Billings (who was then the junior partner of the firm of J. R. Nichols & Co.), which resulted in the purchase of the drug department of their business by Gilman Brothers. Since that time Mr. Gilman's attention has been given exclusively to the management of their business.

TRADE COMMENT.

DIRECTORY SUPPLEMENTS.

The third (1894) edition of the Era Druggists Directory has now been issued, and the regular publication of the "Supplements" to this new edition was begun in the (February 1st) issue of The Pharmaceutical Era. We solicit from our readers information regarding any changes among the drug stores in their locality, such as new stores, removals, sales, failures, deaths, etc., etc. Address

D. D. HAYNES & CO., Publishers,
DETROIT, MICH.

The firm of Dr. D. Jayne & Son, Philadelphia, has just completed the distribution of five million pieces of advertising matter.

Professor—"How long should a man's legs be in proportion to his body?" Mr. Lowland—"Long enough to reach to the ground, sir."—*Yale Record*.

Bare & Barb is the name of a new firm organized to carry on the manufacture of medicines, elixirs, etc., at 522 VanBuren street, Topeka, Kansas.

The heat Venetian red is now made from copperas, but it received its name originally from the Venetians, who produced it in a natural state from oriental countries.

Lenon grass, *Andropogon ag.*, the source of a lemon-scented etheral oil, coming from the East Indies, has been found to be quite well adapted for cultivation along the coast of southern California.

Red glass is to be tried in one of the small-pox pavilions at North Brother Island, New York, in order to test the value of the experiments made by Drs. Lindholm and Vinsen, of Bergen, Norway, who claim that the pitting of small-pox patients is due to the sensitiveness of the skin to violet rays of light.

Sir Lyon Playfair in a recent number of the North American Review, contributes an article on "Waste Products Made Useful," in which he has this to say regarding certain practices in Paris: "Of all living things rats seem to be among the most repulsive, and when dead what can be their use? But even they are the subjects of production in the industrial arts. In Paris there is a pound surrounded by walls into which all dead carcasses of animals are thrown. A large colony of rats has been introduced from the catacombs. The rats are most useful in clearing the flesh from the bones, leaving a clean-polished skeleton fitted for the makers of phosphorus. At the base of the wall numerous shallow holes are scooped out just sufficient to contain the body of the rats but not their tails. Every three months a great "battue" takes place, during which the terrified rats run into their holes. Persons go round and catching the extending tails, pitch the rats into bags, and they are killed at leisure. Then begins the manufacture. The fur is valuable and finds a ready sale. The skins make a superior glove—the "gant de rat"—and are especially used for the thumbs of kid gloves, because the skin of the rat is strong and elastic. The thigh-bones were formerly valued as tooth-picks, but are now out of fashion; while the tendons and bones are boiled up to make the gelatine wrappers for bon-bons."

One result of the fierce competition now waging in the sugar of milk industry has been the assignment of Wm. E. Smith, president of the American Lactose Co., whose plants are located at South Plainfield, N. J., and Leon, N. Y. It is reported that the assets are much greater than the liabilities.

The fruit of the (gallery) gods, peanuts, now seems to be occupying a prominent place in the minds of our scientists. The peanut has been recently placed in an enviable position as a food and medicinal product, but it has remained for a writer in the New York Sun to bring it forward as a rival to the many cures for leprosy. He has discovered that the nut has a faculty for absorbing alcohol and preventing its demoralizing effect upon the system, while the exhilarating and tonic effect of the liquor is retained. Orders for "Brandy and—" now mean "Brandy and Peanuts."

American merchants are apparently becoming alive to the fact that foreign trade can only be secured by going after it. A number of merchants and manufacturers of New York have organized a Pan-American Permanent Commercial Exhibit, which will open May 1, at the Industrial building, Forty-third Street and Lexington avenue, where over 300,000 square feet of floor space has been secured for exhibition purposes. The organization proposes to send traveling representatives to South American countries to introduce the goods of this country and take orders for the same. Such orders, however, will be handled through regular commission houses as it is the intention of the exhibit organization to act only as promoters of trade.

Pyrethrum appears to be grown on a commercial scale in this country thus far only in California. The extensive use of pyrethrum powder as an insecticide has excited considerable interest in the culture of the plants used for that purpose, viz.: *Pyrethrum cinerascifolium* and *P. roseum*. These are composite plants with flower heads somewhat resembling single chrysanthemums, which, when pulverized, form the Dalmatian, Persian and Buhach insect powders. The *P. cinerascifolium* has found great favor in California, and its culture in Merced County, as well as in Los Angeles County, has assumed large proportions. The culture of this species, so far as known, has only been carried on on level land with plentiful irrigation, but the fact that nearly all species of pyrethrum are natives of mountains, seemed to indicate that the hot plains would not be the best place. Experiments in the Santa Cruz mountains indicated the success of this species there. While *P. roseum* is the prettier species, it cannot compete with *P. cinerascifolium* in culture for profit. Its yield is not one-third of the latter, notwithstanding its larger heads. It produces but few good heads the second year, and its flowering is so gradual that all the heads are not ready for gathering at one time. Experiments with *P. roseum* in New York state were fairly satisfactory; the plants failed to bloom the first season, but endured the winter unharmed and gave a profuse crop of blossoms the second season. Trials of powder made from these indicated as much or more strength than that of the California powder.—U. S. Experiment Station Report.

A recent test of brick made by the dry clay process at the Watertown arsenal showed an average compressive strength of 3,972 pounds per square inch.

According to a report of the United States Consul at Seoul, Korea, the people have been experimenting in political economy, using rice as an object lesson (unseasonable weather during the months of September and October had so affected the rice crop that a famine was feared) and the government announced that the export of grain was prohibited. Later this was modified to include only cereals, and exclude beans, which are one of the chief articles of export. After these matters of legislation had been fixed the weather improved and the crop was found to be nearly up to the average. The result of the prohibition was that the price of rice steadily appreciated, the growers held on to their crops, and the stock on the market was exhausted. As the methods of communication in Korea are of a primitive nature, it took the government some time to reverse the legislation, which had the effect, for a time, of almost entirely suppressing trade. Korea is very short of available currency, and all imports are paid for by exports, and the stoppage of one means a falling off of the other.

Although there is a sense of weariness induced whenever tariff bills are mentioned, the fact that the finance committee of the Senate has reported upon the Wilson bill will no doubt call forth a sigh of relief. Senatorial dignity will now discuss the following changes in the chemical schedules: Tartaric acid, reduced from 20 to 10 per cent. Alumina, increased from 20 to 30 per cent. Coloring for liquors, reduced from 50 to 30 per cent. Glycerine, from 1 and 3 cents for crude and refined respectively, changed to 20 per cent ad valorem. Iodoform, changed from \$1 per pound to 25 per cent ad valorem. Licorice, changed from 5 cents per pound to 25 per cent ad valorem. Magnesia, changed from 7 cents per pound to 30 per cent ad valorem. Castor oil, changed from 35 cents per gallon to 30 per cent ad valorem. Olive oil, changed from 35 cents per gallon to 25 per cent ad valorem. Peppermint oil, reduced from 25 to 20 per cent. Fish oils, reduced from 25 to 20 per cent. Opium, extract of, for medicinal uses, changed from 25 to 20 per cent. Baryta, changed from \$3 per ton to 25 per cent ad valorem. Blues, changed from 6 cents per pound to 20 per cent ad valorem. Ochres, etc., changed from 1 1/2 cents per pound to 25 per cent ad valorem. Whiting, changed from 25 to 35 per cent. Zinc, changed from 20 to 25 per cent. Bichromate and chromate of potassium, changed from 20 to 25 per cent. Hydriodate, from 25 cents per pound to 10 per cent ad valorem. Medicinal preparations, such as cosmetics, from 40 to 30 per cent. Toilet soap, from 35 to 30 per cent. Bicarbonate of soda, from 1/2 cent per pound to 30 per cent ad valorem. Hydrate of soda, 1/2 cent a pound to 25 per cent ad valorem. Bichromate and chromate of soda, from 20 to 25 per cent. Sal soda, or soda crystals, 1/2 cent per pound to 20 per cent ad valorem. Silicate of soda or other alkaline silicate, 1/2 cent per pound to 20 per cent. Cream of tartar and patent tartar, 25 to 20 per cent. Tartar and lees crystal, partly refined, from 25 to 30 per cent. Soda ash, 1/4 cent per pound to 20 per cent ad valorem.

DRUG STORE MANAGEMENT. Buying and Selling.

Were it not for the fact that many fall in business, the mere act of purchasing goods and then selling them to other people might be considered as a very simple operation. But this fact of failure shows that there are many things to be done and many to be left undone in connection with these vital business transactions. Taking a merchant starting in business with a fairly adequate capital, in a neighborhood which can properly bestow upon him a fair amount of patronage, and the argument should be in favor of his success, in buying at wholesale certain goods which the public is in the habit of using, and in disposing of them at a certain advance over their cost, retaining the difference between these prices as his justly earned reward. This is the theory of merchandising which underlies all success, and as theories are constructed more or less upon observation of previously existing facts, the failures must be attributed to defects in practice. Many of these defects are due to personal characteristics which debar certain individuals from becoming successful business men. There are certain mental, moral and personal qualities which the public do not like and will never be educated into liking, and the only relief for the unfortunate possessor of such qualities is an education in a school for deportment.

Where competition is as keen as it is at the present time, and trading goes by favor, department, in all the varied aspects which the word implies, is one of the greatest known factors in selling goods. This is quite apparent when it is noted that the tradesman of to-day is in the habit of saying "Thank you" at the completion of transactions between himself and customer. This "Thank you" is not strictly necessary where both parties are supposed to be mutually benefited by a simple change of commodities, but it is quite the fashion for the seller to tender this courtesy to the buyer as a reward to the latter for not trading elsewhere, all of which goes to show that trading goes by favor, and that proper deportment, diplomacy and a regard for the amenities which mark the conduct of social affairs are quite important adjuncts in the selling of goods. These are, in fact, the first things on the list to be acquired when buying merchandise to be sold again, and a constant remembrance of the difference in the fly-catching qualities of molasses and vinegar will be of service to the man who wishes to catch customers.

The next thing to be considered is the application of the old saying, "Goods well bought are half sold." As regards buying staples, nothing need be said, as no man has an excuse for entering business without a fair knowledge of these and their qualities. But there is perhaps no business in which so many articles of doubtful selling qualities are offered as in that of the retail druggist. It requires the keenest judgment to determine the selling qualities of the novelties, and new medicinal preparations which are daily brought to the retailer's notice. The only safe plan is to follow the natural law of supply and demand: let the demand come first, and keep the supply almost to the famine basis until the public appetite becomes thoroughly whetted. Where the sale of goods depends upon

advertising, let the advertising go on ahead—quite a distance ahead, too. Experience with dead stock will convince nearly every druggist of the wisdom of such a course, but it is right here that the qualities of the good salesman come into play. It is rarely the case that articles are put upon the market without possessing some intrinsic value, but there are any number upon which the druggist errs in judging the selling qualities. In cases of this kind there should be redoubled efforts to show the public the value of the goods, and every means of advertising should be resorted to. It is surprising what a little determined effort will do in reducing dead stock.

A plan which is in successful operation in several sections of the country, in other lines of business, is that of exchanging commodities which have, from various causes, become unsalable. This is effected by thorough local organization of the trade which adopts the plan, and is carried out by members of an association listing with a secretary or some specially appointed officer, such goods as the members find are of slow sale, or of which they have a surplus. These lists are printed and distributed at certain intervals to the members, who often find goods thereon which they happen to be in need of, in which case the seller is usually willing to make a concession, or the exchange can be made in goods. It is the duty of the secretary of such a body to simply put parties in communication with each other, the details of the trade being attended to by the persons interested. This plan has proven quite economical in the grocery business, and it would seem to be particularly applicable to the patent medicine portion of the drug trade. As is well known, goods of this character are often in brisk demand in certain neighborhoods, due sometimes to special advertising, or to some "great cure" which has been brought to public notice, while in a locality a few miles distant the same preparations may be dead stock. In instances of this kind an exchange would be of mutual benefit. This plan also has a tendency to cause greater attention to be paid to the handling and storage of goods to prevent their becoming damaged or shopworn, as the druggist would then learn that the public does not care to purchase shopworn goods, any more than he would desire to purchase the same from a fellow druggist. Goods which have to be sold with an excuse for their appearance are not regarded favorably by the purchaser.

It has long been the habit of the pharmacist to scold the physician for carelessness in writing prescriptions, but what excuse can be made for the druggist who displays the same carelessness in ordering goods of his wholesaler? Surely the man who makes a mistake in ordering goods is open to as much criticism as the physician who errs in prescribing, although the consequences may not be as disastrous. Too much care cannot be exercised in ordering goods. In this day of cheap paper and ink, there is no excuse for abbreviations and puzzles for the jobber to get distracted over, and finally solve by guessing. The minutest detail regarding goods wanted should appear upon the order for them. It pays better than paying freight on goods not wanted, and postage on scolding and explanatory letters regarding the same

Where orders are given to a traveling man, a duplicate copy of the order, as sent to the firm, should be retained by the merchant. Where orders are sent by mail, they should be copied, and the only practicable means of doing this is to write them with copying ink, and take a fac simile of the same by means of a copying press. This method locates all mistakes in ordering, prevents all disputes as to who is to blame and is just to all parties concerned. These copies of orders, as well as the invoice, should always be checked off when goods are unpacked, and comparison made between them.

It is only by the exercise of constant vigilance that proper observance of these apparently petty details can be secured. Many think the "game not worth the candle"—but as stated before, many people fall in business, and among these latter are a large number who let details take care of themselves. The habit of training our apothecaries to regard matter as composed of atoms and molecules should be extended to their business training. The large and successful business is made up of multitudes of little business atoms, and any weakness or disproportion in the latter affects the former. The retailer, in dealing with his jobber, should be exact and precise in ordering what he wants, and he should be just as exact and precise in seeing that he gets what he orders. It is the policy of all reputable houses to furnish their customers what they want, and if no complaints are ever made no improvement will ever be made in matters which are capable of improvement. All deficiencies in quality, price and packing of goods should be attended to promptly by the retailer, and all blame for such deficiencies should be placed where it belongs, even if the matter has to be traced back to the producer. The retailer should protect the consumer, and he can only do this by insisting upon being supplied with goods that do not have to be sold with an excuse or brought back for an explanation. An attention to even defects which are apparently small, but which displease the consumer, is a procedure which pays, even if the expense of rectifying them seems out of proportion to the amount of money involved. But when manufacturers find out that poor goods evoke complaint, there will be an improvement in their products. The same plan applies to the adjustment of annoying losses and damages incident to the transportation of goods. The placing of claims for damages against transportation companies often appears to be a waste of effort, but a multiplication of claims against such companies is a wonderful incentive against carelessness. Every case of this kind should receive attention from the merchant as a matter of principle, and it will pay in the long run.

The field of discussion involving all the points in buying and selling is one which is well nigh inexhaustible. There is one, however, which will always be open for discussion. It is that regarding the best methods of getting money from the person who has purchased goods, and promises to pay for them in the always indefinite future. It is well known that the purchase of drugs is more of an incident in the lives of most people than it is an every-day occurrence. Sickness usually means a cessation of a man's

productive power, and in many instances the druggist is asked to wait until the power of production can be resumed, but this period with our people of limited means for no means at all is one in which the demands of the butcher, baker and the man in the lighting business are found to have preference. A well man can do without drugs, but he can have no quarrel with the men of bread and meat. In consequence, the man of drugs is usually compelled to wait. The man who has to do a credit business finds that his labor in doing business is only half accomplished when he exchanges merchandise for promises. In fact, he is just beginning his real labors in many instances. Dunning may possibly drive away a customer who might possibly pay in his own good time unasked. But, considering the question from all its aspects, the best plan is to educate the public into the habit of being asked to pay when money is due. The "monthly statement" should fulfill its mission every thirty days, and the foot note, if one is used, should be couched in the least offensive language, but at the same time should convince the recipient that the sender means "business," and that the successful conduct of his business depends upon receiving payment for the goods he sells. This plan soon results in an identification of the "can't pay" and "won't pay" classes, and the earlier this knowledge is acquired the more benefit it is to the dealer.

DECEPTIVE ADVERTISING.

The trite saying of Abraham Lincoln relative to fooling people has been applied so generally to all methods of doing business that there is good reason to suspect that an appropriate application of the idea might be made to the business of advertising. P. T. Barnum is usually given the credit of being the ablest individual who ever fooled all the people part of the time, but his statement that people liked to be humbugged has misled many people, who have endeavored to do business upon this principle; for, in spite of his apparently deceptive and exaggerated advertising, no one could ever accuse Barnum of traveling with a poor show, or of not having the best show upon the road. But these latter points have been overlooked by many of his would-be imitators. As regards that portion of the people who are susceptible of being fooled all the time, it is believed that the class is diminishing in numbers, even if the market for gold bricks, green goods and free prescriptions does show a firm tendency. It is not surprising, when the various schemes now in vogue for grasping fortune are considered, that the business of advertising should be carried to an extreme, so far as correctness of statement is concerned. Each violation of truth and propriety, as it received the sanction of those who were being fooled part of the time, seemed to call for increased competition in this line, until now nearly everybody either sells at or below cost, and published statements regarding "bargains" and "slaughter sales" are regarded as a redundancy of words whose greatest, and perhaps only, effect is produced by the colors and skill of the sign painter or printer who fashions them. One thing is sure, the general public has lost nearly all trace of the definite meaning of such expressions, and now regards

them with indifference and quite often with a contempt which has resulted from too great familiarity.

This trend in advertising tactics may be regarded as the swing of a pendulum, which must necessarily be swung just as far in an opposite direction, and it is now quite noticeable that the George Washington sort of man is soon to have an inning in the game of advertising. He has pulled Truth from the bottom of her well, and now asks the public to gaze upon her as she appears in his advertisement. He is going to be successful, too. A great deal of the credit for this new style in advertising is due to the professional writers of advertisements. They have recognized the fact that the public likes a change, and what could be more novel than a strictly truthful advertisement? The ordinary citizen who has been reading for years of impossible bargains and deliberately saying about advertisers what the psalmist said in his haste about all men, now finds relief in both reading the advertisement of the truthful man, and then patronizing him. He is beginning to believe that the man who advertises an immense stock of goods and is "just out" when some staple article is wanted, is a fraud. The man who "cuts prices in two" is losing in popularity since the advent of the truthful man, as people are beginning to believe that prices which can stand such treatment must have been a gross injustice to buyers who purchased before the reduction was made.

The man who advertises, and then lives up to the statements in his advertisement, is uniformly successful, and he is the man who offers testimony that advertising pays. He knows that overdrawn statements and lying advertisements benefit his competitors, and he is too wise to spend his money advertising other people. He knows that it takes dollars to overcome the disadvantage of having displeased customers, and that his statements in print should come much nearer the truth than his casual remarks to people who enter his store. An oral advertisement of the latter sort takes its tone from the voice which utters it, while that in cold type must be of a character to stand the interpretation which a hundred different readers may put upon it. The public which reads an advertisement which bears an external evidence of truth is much in the same mind as Mopsa in "Winter's Tale," who says, "I love a ballad in print, a falth; for then we are sure they are true."

SOME GOOD ADS.

There is a retail drug firm at Belle Plaine, Minn., which believes in keeping the public awake on the subject of the side lines which they handle. This is done by running attractive advertisements in the local newspapers and changing them often. These "ads" are set so that it does not require a big effort to read them, and the matter is of a nature that really interests. We present three samples, which give an idea of the method and style adopted by this enterprising firm.

PAPER

was invented
by the Chinese

170 B. C.



Since then the styles and quality have been greatly changed, so much so that the first paper made would hardly do nowadays.

We have just received a lot of fine writing paper, in the latest shades and colors, that will please both you and your friends, as it is well made and easy to write on. You need not fear the cost for we are selling the boxes containing 24 sheets of paper and 24 envelopes to match for 35c. We don't think it will last very long at that price, so you had better get some soon.

GEO. SCHOELL & SON,
Druggists,
Belle Plaine, Minn.

Comb Your Hair!

It will make a great difference in your appearance; you doubtless know that.

But do you know that we have a lot of new, large size nickel-back combs that we are selling for ten cents each?

Come in and see them, and you will surely say that you never saw so good a comb offered for so little money.

GEO. SCHOELL & SON,
Druggists,
Belle Plaine, Minn.

Never Borrow a Tooth Brush

for we have a large stock of tooth brushes at all prices. The selection is good, and if you

Buy One

and use it, you will find it will give you good satisfaction and improve your appearance.

GEO. SCHOELL & SON,
Druggists,
Belle Plaine, Minn.

DRUG POETRY.

The reading public has been laughing considerably of late over a poetical effusion which appeared in the columns of Puck, in which the habit of seclusion which afflicts the druggist when engaged in filling prescriptions is derided in a rather humorous manner. It has remained for Mr. E. E. Stanbro, a clerk in Smither's drug store, Buffalo, N. Y., to make a suitable reply, which appeared in the columns of the Buffalo News of January 17. We give both poems below.

Lines to a Druggist.

O, man of mystery and mysteries!
Why hide thyself behind the fixtures,
Why scribbling up those horrid messes
That cure our bodily distresses?
Thy owl-like look defies description,
When reading o'er each new prescription;
Eh, mortars filled with sticky masses,
Of all thy manifold deception.

Bring out the bottles, tubes and glasses,
And mortars filled with sticky masses,
And let us view the slow compounding
Of drugs with Latin names high sounding.

Learn why it takes an hour to make
them—
To measure, weigh, and stir and shake
them.
And know, by sight grown comprehension,
Why Aqua Pura's so expensive.

Thou needst not scowl and glare terrific
When mixing up a soporific;
Nor make you art seem half historic,
In adding squills to paregoric.

Then hide no more behind the grating,
While we grow old with anxious waiting,
But let us see what means this Sanscrit,
Of which thou makest careful transcript.

Mix not our physic in seclusion—
We're not misled by such delusion—
But rather let us watch the making,
And know what is the stuff we're taking.
—Puck.

The Druggist's Side of It.

Since the reason you would know
Why the druggists always go
Out of sight with your prescription,
I will try to give description.

Listen as I sing a ditty
Of a druggist in our city,
By the name of Henry Hank
With a drug store near the bank.

Henry's store was quite a wonder,
Full of things of all kinds;
But, for just prescription work,
Swore he'd never hire a clerk.

Had a boy attend the door,
Wash the windows, scrub the floor;
Henry waited on the trade,
Man and woman, child and maid.

With prescriptions 'twas his wont
To compound them out in front.
No concealment in his place—
"Ain't afraid to show my face."

One day to this place of drugs
Came his friend, old Silas Scruggs,
With a formula for cough,
Wanted it put up "right off."

Then began a conversation
Of a somewhat long duration
On the weather—poor Silas,
While the drugs were on the mix.

Henry got off a good joke,
Scruggs' ribs did gaily poke;
Stopped a postage stamp to lick,
Came back with the arsenic.

Then in came a pretty girl—
Henry left things with a whirl.
She would but a minute linger—
Wanted salve for a sore finger.

Next Scruggs must a story tell,
And it's true he told it well.
Henry laughed and held his side,
Laughed, and—put in bichloride.

With the medicine and cough
Scruggs quite happy wandered off.
"Saw it put up—knew 'twas right!"
Took a dose and died that night.

In six feet of earth they planted
Scruggs, on ground that's surely haunted.
Widow got a good insurance,
Henry's life is now in durance.

For the people wrathly rose,
Said, "One druggist we'll endorse!"
Put poor Henry in a cell,
Where he waits electric hell.

Think our druggist was to blame?
'Twas a man of Scruggs by name;
He would talk to the dispenser,
And his poor soul has gone hence, sir.

I might spin this out much longer,
But I couldn't make it stronger,
And this ditty, quite extensive,
Shows why "water's so expensive."

Simple drugs, like soda water,
(With frumenti for a quarter),
We dispense in open places,
Where you see the clerks' bright faces.

L'ENVOI.

Back behind the case you've cursed,
Works a man in drugs well versed;
Working hard and silently,
Thus insuring accuracy;
Think not this a "jame confession—
Mixing drugs is my profession."
Buffalo, Jan. 15, 1894. S. E. E.

PATENTS ON ADVERTISING SCHEMES.

It usually requires ideas before a thing can be patented in the United States, but the Patent Office has recently decided that ideas themselves are not proper subjects for a patent. The case which called forth this decision was one in which the applicant claimed to have invented a plan to induce the public to read advertisements in the newspapers, the operation of which was as follows: Numbered pictures are issued with each copy of the paper and the advertiser prints in connection with his advertisement an offer to give away some article of his stock upon presentation of one of the pictures bearing a certain number. As part of the claim a sample advertisement was presented in which a New York pharmacist offered to give away a family medicine case for a tintograph view of Union Square numbered 349, published with a certain issue of the New York Recorder. It was assumed that the advertisements would all be read by purchasers of the paper in order to see whether any advertiser made an offer for the picture bearing the particular number issued to them with their paper. The commissioner in rendering his decision asked: "Is this series of acts an art, such as is intended to be protected and its growth promoted by the patent law? In addition to issuing the numbered pictures and publishing an offer of an article from the advertiser's stock in return for the picture bearing a certain number, the plan implies a lawful method of choosing that number and fulfilling the offer; otherwise the reader is induced to scan the advertisements by a false pretense. In the newspaper filed in the case the offers are for a picture issued the day before and bearing a particular number, and it is to be noted that the selection is thus made after that picture had fallen into the hands of some one who may be known to the advertiser; but if this were not so, what method can be suggested consistent with fairness and good morals of choosing the number of the picture whose holder is to receive the gift? Somebody must choose it, either by favoritism or by caprice or lot. This omitted step in the process savors of unlawfulness. Again, if this process is practiced by one taking the prescribed steps in the order mentioned, the process will not produce any physical effect. A patentable process

must accomplish some change in the character or condition of material objects; hence, a plan or theory of action which, if carried into practice, could produce no physical results proceeding direct from the operation of the theory or plan itself, is not an art within the meaning of the patent law."

WAS IT ALL FOR MEDICINE?

That eminently sober and conservative paper, the Springfield (Mass.) Republican, has recently investigated the workings of the "no-license" liquor law, which is in force in portions of the state where the prohibition sentiment prevails. The showing is one which is not very favorable for the drug trade, but a different result could hardly have been expected from such a law, which seems to offer every inducement possible for lying and subterfuge.

Sections 2 and 3 of the act read as follows:

Sales of intoxicating liquor of any kind by retail druggists and apothecaries for medicinal, mechanical or chemical purposes shall be made only upon the certificate of the purchaser, which certificate shall state the use for which the same is wanted, and shall be immediately canceled at the time of such sale in such manner as to show the date of cancellation.

A book shall be kept by every retail druggist and apothecary, in which he shall enter at the time of every such sale the date thereof, the name of the purchaser, who shall also sign his name in said book as part of said entry. The kind, quantity and price of said liquor, the purpose for which sold and the residence by street and number, if there be such of said purchaser, and if sale is also made upon the prescription of a physician, the book shall also contain the name of the physician and state the use for which said liquor is prescribed and the quantity to be used for such purpose, and shall be canceled in the manner before provided with reference to certificates.

No sales can legally be made on Sunday save on a physician's prescription. Of course false or fraudulent certificates are punishable under this act, the extent of the fine being \$10. A druggist, for violating the act, may also be prosecuted and punished, but these penalties, it seems, are seldom or never enforced, for convictions are very difficult to secure. An unprincipled druggist may conduct a liquor business on an extensive scale and have nothing to fear.

The reading of the law shows that all a person has to do to obtain liquor at a druggist's is to fill out a blank certifying that he or she wants the article for medicinal, mechanical or chemical purposes, and then enter a signature. No oath is taken during this procedure.

Westfield, Mass., voted no-license last March, and the decree went into effect May 1, 1893. The druggists of that town at once became more interested than ever before in chapter 431 of the statutes of Massachusetts, which is an act to limit and regulate the sale of intoxicating liquors by retail druggists and apothecaries. A druggist's license costs but \$1, the idea underlying that insignificant sum being to place the druggist on his honor, but statistics covering the sales of intoxicating liquors by six drug stores in Westfield for a period of thirty-one days have been given by a correspondent of the paper, which shows how the scheme really works.

Westfield is a town of 10,000 inhabitants and is a typical New England town of the better class, but during the thirty-one days noted six druggists sold 7,076

pints of liquor, the sales aggregating 5,928. Of these sales 5,581, aggregating 6,772 pints, were sold for "medicinal" purposes, the average daily sales of all the stores being 206, with an average number of pints amounting to 250. The statistics further throw considerable light upon the medicinal qualities of liquors, as it is noted that 43 per cent of the sales were of beer; whiskey and gin ranking next in order. The clinical records appearing upon the druggists' books during this time would lead one to the conclusion that alcohol is a panacea for all the ills that flesh is heir to, and that the best effects are obtained by liberal doses. One "sick" individual bought in twenty-three days eighteen pints of gin, eight pints of beer, six and a half pints of rum and five and a half pints of whiskey. Another man bought thirty-one pints of intoxicating liquor for medicinal purposes on two successive days. One man carried a rubber stamp to save the trouble of writing his name on the drug store certificate. It is also noted that "Jack Dempsey," "J. J. Corbett," "Tom Ato," "Lizzie Borden," "Head Ake" and other well known characters are steady customers at the Westfield drug stores. The Springfield Republican is now of the opinion that the law should be amended immediately.

GERMAN ROSE CULTURE.

In describing the cultivation of roses and distillation of the oil at Leipzig and Miltitz, Saxony, by Schimmel & Co., Prof. F. A. Fluckiger, in an article appearing in a recent publication by that firm, says:

"At first Centifolia roses, from the neighborhood of Leipzig, were employed, but in 1888 the firm procured a considerable number of rosebushes from Bulgaria, which increased rapidly under suitable treatment. The roses from Kasanlik flourish excellently in the porous, chalky, loamy soil of the Saxon plain, in which subterranean water generally occurs at not too great a depth, provided that a liberal supply of moisture be not wanting during the flowering period at the end of June and the commencement of July. A widely ramified drainage system moreover is already in working order to insure a supply of water to the deep-striking roots of the plants. The roses have been multiplied by means of cuttings taken from shoots with two eyes, and which either have already flowered or are capable of doing so.

"The Bulgarian rose-shrub is furnished pretty freely with not very decidedly backward-curved prickles. The smooth, lanceolate-ovate, three-paired pinnate leaves and the terminal leaflet are pure green. The calyx, also, is smooth, or very slightly hairy. Many clusters have about twenty-seven flowers, grouped together so as to almost resemble an umbel. The diameter of a rose in full bloom does not exceed more than 7 centimeters (about 2.45 inches), and, although the flower is a double one, it nevertheless contains a considerable number of stamens with large, yellow anthers. The outside leaves of the corolla are frequently almost white, the inner ones reddening toward the center of the flower, in the most favorable case they are almost entirely pure rose-colored. Experience teaches that over-mature roses, showing a more or less clearly-defined violet tinge, contain less oil than others. This applies in

a much greater degree still to the white, or only slightly pink-tinted flowers, which are often almost odorless, and, besides, betray themselves as malformations by their starved appearance. Too dry weather favors this backwardness and the falling off of such flowers.

"The Bulgarian rose-shrub possesses the advantage of being a very free-flowering plant, and it is a matter of some importance that the flowers can be rapidly and smoothly detached from the petiole, immediately below the calyx, with surprising ease. The strong annual shoots of the shrubs grow over three and a quarter feet in height; the plants now in bearing are mostly only half the height. After the flowering the old wood is pruned down; for the rest, time must show which is the best method of cultivation.

"By giving it the name of Rosa Damascena Miller the attempt to trace the Bulgarian rose from a known uncultivated variety has been abandoned, for the Damask rose is a product of horticulture, although it may be systematically classified in some way or another, probably, with the nearest approach to accuracy, as a hybrid of the Rosa gallica and Rosa canina. In the course of time the Kasanlik rose has become a distinct variety.

"At the present time about eighty-five acres of this rose are under cultivation at Miltitz. During a few weeks at the end of June and the beginning of July this area yields daily from five to twenty tons of flowers. After a sufficient fall of rain it is even possible to harvest a still larger quantity of fine, matured roses. Their condition depends greatly upon the weather. From 115 to 160 well developed roses go to the pound, but it requires as many as 275 withered ones to make up that weight, and even then they are not comparable to the fine flowers in respect of odor. Want of rain and scorching heat have thus far shown themselves the principal drawbacks of the culture. Nevertheless, the yield of roses appears to be equal to that in Bulgaria, which is about 48 cwt. per acre. Besides roses, the cultivation of mignonette, violets, peppermint, tarragon, angelica and leuciscum has already been commenced at Miltitz.

"It very soon proved unavoidable to carry out the distillation of the roses in the immediate neighborhood of the plantations, and to restrict these to the parts surrounding the factory. When the conveyance of the roses to the still took several hours, or even a whole night or day, they spoiled, and produced ethylic alcohol instead of, or together with, rose oil; the worthless stearoptene suffered no diminution. At present about five miles southwest of Leipzig, immediately adjoining Miltitz station, there rises, under a light roof glittering from afar, a distillery, systematically supplied with the best modern appliances. On a sunny day the simple, almost elegant, contours of the boiler-house carry away the thoughts of the visitor, whose attention is not riveted on the distillation process, to the lovely landscapes of Tuscany, with their noble buildings (devoted, it is true, to other objects), and dim reminiscences of solemn domes, such as those of Pisa, involuntarily force themselves upon his mind.

Every forenoon the freshly gathered roses now reach their place of destination within a quarter of an hour at the most, traversing that short distance not tightly packed, but distributed in baskets

of moderate size. Without delay they are carried, through a man-hole over one and a half feet in diameter, into the powerful copper stills, of which the conical bodies are capable of carrying each one and a half tons of roses, besides the water required for distillation.

"The rosebushes only have been imported from the far-off hills of the southern Balkans, not the mode of treatment which is practiced there. In Miltitz the supply of heat, its distribution and the time of its action have been made to suit the nature of the otto of rose. Any alterations, therefore, to which it might be liable are at least reduced to a minimum without causing any delay in the distillation. Moreover, on the basis of the experience gained, a threefold process of treatment of the roses has here been evolved. Thus the object may be either to separate the oil or to prepare rose-water; or, lastly, to use a portion of the crop for the manufacture of rose-pomade. The distiller is, therefore, by no means satisfied when he has removed the layer of oil and stearoptene which has collected upon the surface of the distillate. Even the preliminary separation of the oil and the stearoptene is made use of for the purification of the oil.

"It may be taken for granted that about 5,000 pounds of well-developed, fully-matured roses are required to produce one pound of otto; occasionally the yield is a little greater. The liquid part of the otto of rose consists of rhodinol, first investigated in 1881 in the Pharmaceutical Institute of the University of Breslau. Whereas, all other essential oils, so far as they have been investigated, are mixtures of several constituents, no other ingredients have as yet been found in the liquid part of otto of rose. If any should be present (which can hardly be doubted), they certainly form an exceptionally small proportion.

"Perfect cleanliness is the rule in the gigantic still-room, from the four mighty stills that form its principal feature (at least two more could easily find place) down to the smallest accessory utensils. Ventilation diminishes the perceptible odor to such a degree that it is quite comfortable to remain in the well-lighted factory. The slightly yellowish contents of the stills flow into a shallow trough which has been constructed before the factory-gate. It is possible that certain substances contained in the roses, which are not yet clearly known, suffer decomposition during the process of distillation, and that the decoloration of the broth which has slightly acid reaction is an indication of this fact. At any rate, the broth in the trough assumes, in the course of twenty-four hours, a dirty red color, doubtless due to oxidation, and gradually acquires a somewhat harder consistency. In the interests of physiology of plants, it deserves closer investigation.

"The petals of the roses do not possess special receptacles, such as glands or oil ducts, in which drops of the oil or crystals might be seen as in cloves, in the peppermint herb, or in lemons. It would appear, on the contrary, that the very minute proportion of the otto of the rose lodges in the sap of the small epidermis-cells of the upper surface of the petal, though probably only the liquid rhodinol, which alone is the odorous principle, is found there. The other ingredient of the crude otto of rose, i. e., the odorless paraffin or rose-stearoptene, prob-

ably belongs only to the surface of the petal, from which it is detached in the process of distillation, its melting point being 32.5° C., or, perhaps, a little higher. Although under ordinary conditions this stearoptene only volatilizes at a temperature far exceeding that of the still, it is, nevertheless, carried away easily by vapor entering under pressure. It is worth noting that hydrocarbons, probably of the ethane, or paraffin-series here occur in combination with the oxygenated odorous principle, rhodinol. Even the preliminary investigations which have been made here have shown that the rose-stearoptene is by no means a simple body.

"The five calyx-segments of the rose cultivated at Milnitz are not very long, slightly velvety on the inner surface only and sparsely adorned with very minute leafy pinnæ. They carry, especially at the borders, a rather considerable number of hairs, each having a dark-red gland at its apex. The whole of the green parts of the roses, viz.: the receptacle and sepals, constitute about 17 per cent, by weight, of a fully-developed, freshly-gathered rose not moistened by rain. The contents of the glands of the leafy calyx-segments are quite devoid of the rose-odor, even large quantities of those green parts are almost without any odor whatever, and are neither greasy nor sticky to the touch. Where the preparation of otto of rose or of rose-water is aimed at there would be no object in separating them from the petals. Rose-water may be prepared up to a strength representing six times the weight of roses, octuple concentration, however, is hardly feasible, for at that strength the separation of oil or of stearoptene might take place through the action of cold.

"The oil, nevertheless, does not pass through the giant stills and receivers without being chemically affected. It is certain that the odor of the rose is not improved by the process. To the southern French, probably, we owe a mode of treatment which is intended to preserve undiminished the finest odor by first bringing the roses into close contact with fat. For this purpose it is necessary to pull off the whole calices in order to get rid of their undesirable green coloring-matter (chlorophyll). This is not such an easy work in the gathering, especially because the anthers, which are numerous even in the double roses of Kasanlik or Milnitz, must be retained. Only perfect roses are selected for this treatment. By pulling off the green parts the petals, including the anthers, separate into a loose heap and are, therefore, very easily penetrated by the fat, which has been liquified by gentle heat, by beating them up with it for a few hours. The fat used for this purpose is purified with the minutest care and prepared by processes devised from experience gained at the works. The pomade (to retain the convenient French expression) is carried from the copper stirring-vessels into centrifugal machines. These very rapidly separate the liquid fat, which runs into the "Montejus," and is carried by them once more to a fresh supply of the petals. The fullest possible saturation of the fat with the rose-odor can only be attained after due repetition of this process. The pomade, when ready, owes its pretty yellow color to the anthers. The red coloring matter of the petals is not incorporated by the fat.

"Within the pomade the unaltered perfume is excellently retained. It may be kept for a long time and transported at will. In order to make the scent available for perfumes the pomade needs only to be extracted by pure alcohol under gentle heat. This "Extrait," which is possessed of the finest rose-odor, is no doubt a French invention; but the pomades, or perfumed fatty oils, were already among the ancients a much-prized toilet ingredient, which counted its votaries not only among the ladies and exquisites of the period, but also among the leading statesmen of Rome. "Extraits," however, remained inaccessible even during the period of the most extreme effeminacy in the *thermae* of Titus, Caracalla or Diocletian, as the art of distillation had not, at that time, progressed to the extent of preparing alcohol."

FOREIGN DYEWOODS.

The State Department lately instituted an inquiry upon the dye-woods industries in various consular districts, and several reports bearing upon the subject are published in the March volume of consular reports, from which we make the following extracts:

"Hayti exported logwood during the ten years ending June 30, 1892, amounting to \$13,123,642.65, of which amount the United States received \$2,477,697.69. There has been a notable decrease in the export during these years, the figures showing a gradual decline from 152,288,713 pounds in 1883 to 29,766,320 pounds in 1892.

"The forests which produce these trees in the vicinity of roads that are available for transporting the logwood to the seaport are being rapidly denuded and partially destroyed. So eager are the people to sell their logwood that they allow no time for the stumps and roots to mature, which is from eight to twelve years, but cut down the sprouts and saplings, because they can find speculators to purchase them. Should affairs continue in this state Hayti will cease in fifteen years to count logwood among her exports.

There still exists throughout this country an immense quantity of logwood, there being numerous virgin forests of this dyewood; but as they are far from the public roads, it cannot be transported to a distant market. As railroads will shortly be built, concessions having already been granted to several individuals who, according to contract, are obliged to commence work this year and complete it within a specified period, this logwood can then be conveyed to the seaport, and its exportation vastly increased. Should the people, while occupying new fields, allow the old roots and stumps to grow to maturity, then Hayti will be able to furnish to the industrial world as much logwood in the future as she has in the past.

Mexico.

Nature has supplied Mexico with an abundance of woods. Many pages would be required to describe all the varieties. Those that have been known and are already utilized embrace a list of 400. Fifteen of these are used for dyestuffs. One tree, called purplewood, in its natural state is as brilliant as the famous Tyrian dye. The wood looks as if it had been dyed with perfect material, yet that is the way it grows. Another, the species known as "Palo-Moral," is also very valuable for dyeing fast colors. It is found in

considerable quantities in the States of Tamaulipas and Nuevo Leon. However, the principal and best known dyewoods are campeachy (logwood), Brazil wood and fustic (palo-amarillo). The dyewoods exist mainly and extensively in the states of Campeachy, Veracruz, Tabasco, Yucatan, Chiapas, Oaxaca, Guerrero and Tamaulipas. In the states of Sinaloa, Jalisco, Colima, Nuevo Leon and Michoacan there is quite an abundance, but the forests have not as yet been much explored. We can thus infer that dyewoods grow in profusion along the coast of the republic and sparingly in the interior.

The business of collecting and exporting these woods is very lucrative. Several German and a few English firms have been in the business for a number of years in the states of Campeachy, Yucatan, Tabasco and Veracruz, and have made considerable money. The Germans and French were the first to develop the business of exporting these woods, but England, for the last few years, has almost monopolized it. The principal markets are England, Germany, the United States, France, Spain and Russia (recently).

As the exportations to the United States are on the decrease, and very few Americans are engaged in the exportation of these woods, it is to be asserted that this industry, in connection with the choice cabinet woods so profusely growing in the above states, together with some of the present facilities for transportation, offers exceptional inducements for the employment of American capital and enterprise.

The wood commonly known as "palo-moral," or "palo-amarillo," is very important on account of its abundance and the facilities for obtaining it. It abounds along the Gulf coast, Guerrero and Michoacan; but that which is produced in Isla del Carmen (Island of Carmen), Tamaulipas (Tampico) and Veracruz (Tuxpan) is more valuable, having a greater proportion of dyeing qualities. It is exploited like Campeachy and Brazil woods. Different sized logs are cut and the bark is separated before both (the bark and wood) are disposed of for market. Its coloring matter in the Mexican market is utilized principally for staining cotton, silk, and more particularly wool, with a beautiful yellow. In combination with campeachy, indigo and salts of copper and iron, various other colors are produced. For many years it has been exported to Germany, France and England. Its exportation running as high as 9,000,000 kilograms a year.

Although the forests of these and other woods cover almost all the coasts of the republic, and are still very extensive, it has been thought that the random and careless manner of cutting down the trees would, in time, destroy them; hence the department of encouragement has issued a circular to prevent the destruction of this immense source of wealth. The government also, with the same object, has placed an export duty on cabinet and construction woods of \$1.50 per cubic meter, and on campeachy of \$1.50 and palo-moral of 75 cents per ton of 1,000 kilograms. But it is the opinion of Mr. L. Glezias, in the department of Fomento, that, notwithstanding the wanton manner of the natives in cutting the trees, this Mexican resource is almost inexhaustible. Vegetation is so prolific along the coast and tropical section

of the country that cutting trees and clearing the ground stimulates the growth of its products, and immediately after trees are felled a new supply of young trees is ready to substitute them.

Colombia.

The United States consul at Panama, in reporting upon the dyewoods of Colombia, says: "There are great quantities of fustic timber here and some divi-divi. No logwood has as yet been discovered, although it is probable that the tree will be found in the yet unexplored timbered wilderness and vastness of the department of Panama. No fustic is sent to the United States from this port, because the rates over the Panama railroad from this place to Colon do not justify it.

"Fustic is cut in short pieces, which, as a rule, are very crooked, thus making close packing an utter impossibility. The shipper would have to pay for two or three tons (space) when in reality he would send only one ton in weight.

"The dyewood history is, so far as this place is concerned, just about one year old, and there are no official statistics in regard to it. However, the information I have gathered is quite official, since I have it from the one solitary shipper of fustic from this place.

"All the fustic is cut on government lands, hence the material costs nothing. How long the government will allow the promiscuous and free cutting no one can tell. The labor is exceedingly cheap, and it is safe to say that one ton of fustic, ready to be put on board ship, does not cost \$5. Of course there are no sawmills; the trees are cut along waterways and floated down in the log to a handy place for shipment aboard ship or train, and there it is cut into suitable lengths.

"The price of fustic is so very low in the United States that it is shipped to Liverpool and Havre by the way of Cape Horn on vessels flying anything but the American flag. The ports on the Pacific coast, all the way from San Jose de Guatemala to the Horn, have vessels of European nationalities in their harbors, but no American vessels. Those vessels come loaded down to the gunwales with goods and return with all they can pick up, and this is the way the fustic leaves the department of Panama on the Pacific coast.

"Last year the one solitary shipper of fustic sent to Liverpool and Havre 250 tons of 2,000 pounds. This year he will send less, because the prices are down in Liverpool—one-half of what they were last year." From 15 per ton it has gone down to 12½. In Havre it is worth 8.75 francs per 200 pounds—somewhat higher than in Liverpool.

"The price of the freight from here to the places where the dye is used seems to be the main factor in the matter of value. Cannot some of our chemists devise means by which the extract of fustic—the stuff needed for dyeing—might be separated from the wood at the place where the dyewood grows, thus doing away with the main factor of value?"

Jamaica.

Logwood is the natural growth of the lowlands of the island, and, as a dye stuff, is intimately associated with the textile industries of all manufacturing countries.

During the past ten years, owing to the great demand and increase in price, the logwood industry of this island has

assumed proportions of considerable magnitude, there having been exported during this period 818,358 tons, of the value of \$13,172,338.13. Of this amount there was exported to the United States 138,322 tons, valued at \$2,262,859.87; to the United Kingdom, 443,835 tons, of the value of \$7,039,271.27, and to other countries, 236,199 tons, of the value of \$3,849,204.99. The United States have largely increased their imports. For the fiscal year ending September 30, 1883, there were only 311 tons of the value of \$4,482.81, while for the past fiscal year they amounted to 21,594 tons, of the value of \$391,944.96.

The price of logwood has ruled here for the past ten years from \$15 to \$25 per ton, and has recently risen to \$7.50 per ton. On account of the high price offered, an active trade has been had not only in the straight wood, but in the roots. During this period a large quantity has been brought from the interior of the island, and since the extension of the Jamaica railway a new source of supply has been opened up which was hitherto inaccessible. The exports of roots began about fifteen years ago, and must be made up from the fact that they have been made up from the cuttings of one hundred years previous, when only the trunk or straight wood was in demand and exported. In regard to the future of the straight wood or logwood proper, there is very little probability of the supply being decreased. It will continue for many years to come if the present prices prevail, owing to the care now being bestowed upon the cultivation of the wood. When the old roots—the remnants of cuttings of straight wood of former years—are practically exhausted, the relative quantity of straight wood and roots will probably remain constant in the future. The relatively large shipments of the first few years after they came into use were due to the fact that large quantities were in the ground, having been left there as of no commercial value. The old roots of trees, cut fifteen or more years ago, are now in most parts of the island practically exhausted. A logwood tree that would yield a ton of straight wood would not have over 3 or 4 cwt. of roots.

Fustic. Fustic is a mountainous wood, and, therefore, more difficult of transportation than logwood. The exportation of fustic from this island for the past ten years amounted to 23,318 tons, of the value of \$245,592.25. Of this amount the United States took 3,133 tons, of the value of \$45,266.58; the United Kingdom, 15,650 tons, valued at \$234,656.80; and other countries, 4,535 tons, of the value of \$75,668.81. In 1883 the United States imported 133 tons, of the value of \$1,954.87; the past fiscal year 811 tons, of the value of \$13,316.33.

The price has ruled for the past ten years from \$12.50 to \$15 per ton. It costs as much to market it as logwood, and there is now more than \$10 difference in the prices of the two woods. There seems to be but little demand here for fustic, and the price is so low that but little interest is manifested in this industry.

There is no likelihood that the forests producing this wood will be destroyed, and exporters for years to come will be able to fill any reasonable demand that is made for it.

There is in process of erection in Spanish Town, in this island, a plant for the extraction of dye from these woods; but it is not believed that, even if successfully

operated, it will diminish the exportation of the dyewoods.

FROM AN ENGLISH STANDPOINT.

"Much has lately been said about the danger in South America from foreign competition to British trade. This danger has been greatly magnified. It is true that, glanced at superficially, one would think that the ubiquitous and active Germans were certainly getting ahead of us, but the English have, beyond doubt, the most influential position in South America. In their hands are the banks, the railways, and the higher commerce. Germans only seriously rival us in detailed commerce and in clerical departments. The French are mostly occupied with special produce of their own country, and as for the Americans, their influence and competition are scarcely appreciable. Englishmen will have only themselves to blame if they are deprived of the advantageous position which they have held so long and still occupy, and it will not be so easy to defeat them as some writers seem to imagine."—South American Trade Journal, London.

TRADE MARK INFRINGEMENT.

In the recent case of Kerry et al. vs. Toupin, Judge Aldrich, sitting in the United States Court at Boston, rendered a decree granting a perpetual injunction against the defendant on the ground that he had infringed on plaintiff's rights in the trade name, "Syrup of Red Spruce Gum," under the provisions of the International Convention for the Protection of Industrial Property. The injunction restrains the defendant from dealing in an artificial medicinal preparation under the name of "Syrup of Red Spruce Gum," or any translation thereof. The case is said to be the first finally decided in which the international convention has been construed.

A street car in Plzeburg, fitted with steel ball bearings as an experiment, has been run for several months without being oiled since it was first put in service.

One ton of canal coal when distilled in gas retorts produces besides the gas, twelve gallons of coal tar, which produces a pound of benzine, a pound of toluene, a pound and a half of phenol, six pounds of naphthalene, a small quantity of xylene and a half pound of anthracene for dyeing purposes. Of the colors obtained there are said to be sixteen distinct yellow, twelve orange, thirty red, fifteen blue, seven green, and nine violet colors, also a number of browns and an almost endless number of blendings of these shades.

The great progress in botany, says the American Naturalist, is shown by the fact that 400 years before Christ, Hipparchus was able to enumerate only 231 species. Even two centuries ago only 5,396 species as catalogued by Bauhin, were known to the botanist, and a century afterward, in 1771, the great Linnaeus was able to recount but 8,551. At the present time, little more than a century later, there are known to botanists no less than 173,706 distinct species, 105,231 phanerogams and 68,475 cryptogams, of which latter 2,819 are ferns, 4,600 mosses, 5,600 lichens, 23,600 fungi and 12,178 algae.

TRADE NOTES.

William L. Strauss, of W. L. Strauss & Co., importers of drug sundries, etc., 27 Warren street, New York, sails for Europe April 10 on his annual trip, hunting for novelties of merit.

Raymond & Co., manufacturers of Raymond's Pectoral Plasters, 62 Carroll street, Brooklyn, N. Y., say they are receiving answers to their advertisement on page 7 at the rate of about twenty a day. They want fifty per day, and will do as they agree about the plasters. Why don't you get the \$1.50 they offer you. You can get it in cash in a very few days if you are a good salesman.

As an evidence that times are improving, Mead & Co., manufacturers of drug mills, Detroit, Mich., state that they have orders for mills from all parts of the country, and from the number of inquiries they are receiving they expect a good business the coming season. They have recently shipped four of their No. 2 mills to Des Moines, Ia.; one No. 1 to Chicago, and a No. 2 to San Francisco, California.

Judges at all the great expositions have thought enough of the licorice manufactured by Mellor & Rittenhouse, of Philadelphia, to give it the highest awards. The public thinks enough of it to buy it whenever it is obtainable, and the druggist should be governed by these verdicts in making his purchases. High quality and neatness of package are distinguishing characteristics of the "M. & R." brand.

Attention is directed to the advertisement of E. F. Baker, Chicago, manufacturer of the old and well known Champron sticky fly-paper, which has for its basis parchment paper, claimed to be the most impervious and toughest paper made. The retaining border is also a feature of this paper which gives it a distinct advantage. See prices upon another page in this issue.

Do you expect a rush in the soda water business this summer? If you do not, you are perhaps not preparing for it; and won't have it. If you do expect it, you will need something which will clean tumblers effectually and quickly. For this reason you should investigate Rowe's Automatic Tumbler washers, with brush attachment. Send to L. L. Rowe, 16 Howard street, Boston, for full description and prices.

The Histological Microscopes manufactured by Joseph Zentmayer, 209 South Eleventh street, Philadelphia, are not only used extensively in this country, but many of them are sold in Europe every year. They have certain advantages which make them a valuable instrument for the microscopist, and intending purchasers should send for the catalogue describing them before buying elsewhere.

The Eureka Chemical Co. are making some terms on a good seller which should attract the attention of the retail drug trade. They offer one dozen Pennyroyal Wafers (by express, charges prepaid) at the regular price of \$8 per dozen. They give one year's time in which to pay for them. Plenty of advertising matter is furnished with the goods. Order direct of the Eureka Chemical Co., 10 and 12 Michigan avenue, Detroit, Mich.

Where 50 to 100 per cent can be saved by knowing how, it is a good idea to find out how it is done. The Merz Capsule Co., of Detroit, Mich., will furnish this information to all who will ask for it. It is done by using their Empty Elastic Capsules and filling apparatus in compounding prescriptions, but their catalogue tells all about it and gives some figures which are quite interesting to the druggist who is inclined to combine economy with convenience.

Smith's "True Fruit" pepsin chewing gum is popular with the public, because it possesses considerable medicinal value and retains its flavor for a long time. "Kof-Kure" gum is also popular on account of its efficacy in coughs, colds and hoarseness. The retail trade favors these gums on account of the attractive manner in which they are put up. The fancy counter box with alarm bell is quite a novelty, and aids very much in attracting attention to the goods. Write J. Hungerford Smith Co., Rochester, N. Y., for prices.

You can dispense powders in "Konseals" as quickly as you can fold them in powder papers, and as they are claimed to be of twice the capacity and half the diameter of any cachet or wafer on the market, the physician and his patients greatly prefer them. Samples of Konseals, and description of the apparatus used in dispensing them will be sent free upon application to the American agents, J. M. Grosvenor & Co., 105 Milk street, Boston. They will also send you sample of their advertising to the medical profession. This advertising never fails to interest the physician.

If you want to know how to compound some of the latest soda water drinks that are now stimulating public taste, and creating a demand for themselves; if you desire to know all about fancy syrups, crushed fruits, ice creams, ices, soda and mineral waters, write to W. A. Bonham, 201, New Era building, Chicago, for prices and information regarding Bonham's Soda Guide, which is full of hints and suggestions relative to manufacturing and dispensing, and formulas for compounding the various popular drinks.

The Ash Soda Fountain Co., of Chicago, have embodied several improvements in the construction of their apparatus which those interested in the soda water business will regard with much favor. The arrangement of their horizontal syrup jars and spring appliance which holds them when partially pulled out for filling or cleaning is certainly unique, and does away with a nuisance which has long bothered the dispenser. Write for detailed description of their apparatus and judge of its merits for yourself.

Mrs. Gervaise Graham has removed from 1355 to 124 Michigan avenue, Chicago. In sending notice of this removal, Mrs. Graham adds: "Notwithstanding business depression, our January and February sales were double those of corresponding months last year. I now give jobbers a discount of ten per cent and five per cent for cash in 30 days. Madam Patti has just ordered a dozen of my Cucumber and Elder Flower Cream and two dozen of my dip Rouge, which she desires to take to her residence in Wales."

Elegance is one of the prime requisites around the soda fountain, and the public, while it may tolerate slipshod methods, prefers to trade where everything is conducted in first-class style. The Bradley Ice Cream Cabinets are great helps in creating this latter impression in the minds of soda water patrons. They can see that ice cream is dispensed from an apparatus which is in keeping with the usual surrounding of the soda counter, and it certainly looks better to serve cream from a cabinet than from a freezer under the counter. Then it is more convenient for the dispenser, and anything of this character is worth investigating. Write for descriptive circular.

INHUMAN TREATMENT DENOUNCED.

Dr. Frank Thatcher, of Fort Worth, Texas, a leading veterinary surgeon and a graduate from one of the largest English colleges, writes under date of March 10 as follows: "After giving Quinn's Ointment a thorough test, I think it my duty to express my candid opinion as to its merits. I have abandoned all other blisters, as Quinn's Ointment is more effective and by all means more humane in its action. Though this statement is not very professional (that is, to recommend patent medicines), I do this hoping that all intelligent persons will take advantage of so valuable a remedy and save many a noble horse the inhuman practice of the firing iron, and likewise the abusive use of strong blisters. I advocate humanity; and in Quinn's Ointment we have something that will relieve any lameness without torture." It will pay all druggists to carry it in stock, and if you desire advertising or will send the names of ten or twelve of your customers who are in the horse-breeding line to Messrs. W. E. Eddy & Co., Whitehall, N. Y., they will forward them, without charge, trial packages.

**HAVE YOU SEEN IT?
Eastern Star Perfume.**



The latest success in the line of popular odors made by Foote & Jenks. It is very delicate and delightfully fragrant, yet its endurance and lasting properties when applied to the handkerchief or clothing is perfectly wonderful.

It is pre-eminently a favorite with ladies, and you know the ladies use most of the perfume. Most druggists have some lady customers who

are members of the order of the "Eastern Star" in whose honor this odor was named. Most gentlemen are fond of perfume—also of ladies—and take very kindly to the "Eastern Star." Order a bottle of your jobber, or send to Foote & Jenks for sample and price list.

Trade tributary to New York City can be supplied by McKesson & Robbins.

The No. 602 Improved Tooth Powder Bottle, manufactured by John M. Maris & Co., Philadelphia, costs \$14.40, less 33 1/3 per cent discount. They hold 2 1/2 ounces liquid, and their construction is such that the public is very likely to want the tooth powder which you put up in them. See description of the bottle in advertisement in this issue, and do a little figuring on an investment in the tooth powder business.

The Ilicorice mass manufactured by MacAndrews & Forbes is recommended especially for pharmaceutical purposes, as it is made from roots gathered in Asia Minor, Syria, Greece and Southern Russia, which are reputed to be particularly rich in glycyrrhizin. Parties using Ilicorice mass in any quantity will do well to write this firm for prices on one of their cases of 50 pounds. Mention the Era.

Ed. Pinaud's perfumes command a good price, and have qualities which make them worth the money. There are lots of people who are looking for quality, and the druggist makes no mistake in placing Pinaud's before them. Send for free samples of Aurora Tulp, Paquita Lily or Acacia de France, and see how quality corresponds with prices. Address Ed. Pinaud, 42 East 14th street, New York.

The Akron-Canton Stone-ware Agency, 25 Lake street, Chicago, makes special wares for chemical laboratories, hospitals, assayers, etc., and guarantee their goods to stand acids and alkalis. They carry jars in stock from one-half pint to thirty gallons, also all kinds of mixing bowls and evaporating pans. Catalogues will be sent upon application, but the kind of goods wanted should be stated when writing.

The well-known firm of Dr. Henry A. Martin & Son terminated on November 5, 1893, by the death of Dr. S. C. Martin. Dr. Francis C. Martin is the only surviving son of the late Dr. H. A. Martin (who introduced vaccination into America in 1870). Dr. Martin attends personally to every detail of the business, and spares no effort nor expense to have his virus the best upon the market. Write to him for prices at Roxbury Station, Boston, Mass.

Fred N. Burt, of Buffalo, N. Y., claims that he has reached the bottom in the production of cheap boxes, labels, etc. for druggists, and has arrived at the top in producing the finest goods in the same line for the same people. This is rather a strong statement, but Mr. Burt will send samples and prices which are quite convincing in support of his claim. Give him a chance to do a little convincing, by sending him an inquiry regarding his goods.

Chambersburg, Pa., March 13, 1882.
S. S. Seely & Co., Bath, N. Y.
Gentlemen: Notwithstanding my aversion to encouraging the sale of proprietary medicines, it is without hesitation that I bear testimony to the almost universal satisfaction that my patrons have experienced from the use of Seely's Liquid Cough, Heave and Distemper Cure. I have sold several gross of it, and recommend it as the only medicine I ever knew that will cure heaves. It has cured many valuable horses in our county.

CHAS. H. CRESSLER, Druggist.

One advantage connected with the sale of the "Pen-niston" combined hot water bag and food warmer, is the fact that it sells nearly as well in summer as in winter. A person rarely has use for a hot water bag in summer, but the "Pen-niston" can be filled with salted ice water, and food for children and invalids can be kept cool and sweet for a long time. Write the Devil Rubber Co., Providence, R. I., if further particulars are desired.

In referring to their distillate of witch hazel, manufactured while the bloom is on the bush, the Connecticut Witch Hazel Co. say that they have every facility for manufacturing a first-class article; they have embarked in the business to stay, and propose to furnish goods that can give satisfaction or be returned at their expense. They invite correspondence for prices and are confident that a trial order will prove the truth of their assertions.

Morrison, Plummer & Co., of Chicago, have recently enlarged their drug sundries department by occupying an adjoining building, which places them in a position to serve their patrons with prompt shipments better than ever before. To show how they also intend to increase their list of business friends, they call attention to a few staple articles in their advertisement in this issue which are worthy the attention of the retail trade.

If you contemplate making any change in the interior arrangement of your store it might be well to consider the respective merits and cheapness of wood, plaster and metal. The two former can usually be figured upon by local artisans, but the matter of metal ceilings and decorations should be referred to Kinnear & Gager, 28 North Fourth street, Columbus, Ohio. Write to them, stating what you want or what you think you want, and they will send you prices.

The past winter has been marked by the prevalence of small-pox in many parts of the country, and the public has had the importance of vaccination brought to their notice in a very forcible manner. The subject of vaccination is one which is always of interest to the drug trade, as the physician usually finds it most convenient to obtain his supplies of virus through the agency of the pharmacist. The subject is, therefore, one upon which the trade should be posted, and there is perhaps no better way to accomplish this than to send to the New England Vaccine Company, 294 Broadway, Chelsea Station, Boston, Mass., for the latest edition of their work on "Variola and Vaccinia," giving a history and description of the disease, with a description of the methods of preparing the virus. It will be sent upon application.

WORLD'S FAIR PICTURES.

Later parts of the Michigan Central's World's Fair Portfolio fully justify the claim made upon the publication of the first number, that it was the best, the finest and the most artistic of popular publications on the White City.

Each part contains sixteen (16) large plates and is sold for only ten cents. If you haven't seen it, the nearest Michigan Central ticket agent will show it to you, or you can write to O. W. Ruggles, G. P. and T. Agent, Chicago.

Flor de Fuller, cigars have proven immensely popular wherever introduced because they have the qualities which all lovers of a mild, delicious cigar most desire. They are sold by the Fuller & Fuller Co., Chicago, at \$5 per thousand, with a discount of \$1 in lots of one thousand and \$2 per thousand in lots of three thousand. Include a few hundred in your next drug order and see if they do not suit your old customers and bring you new ones.

"Forget-me-not," "Drop-of-Dew" and "Horizon Oris" are attractive names, and they have been attached to attractive goods by the Theodore Metcalf Co., of Boston, who use them to designate three of their trade-marked sachet powders. This statement regarding the goods is one which emanates from the general public, who are liberal patrons of the Metcalf Co.'s powders. See list of jobbers in advertisement in this issue who handle these goods.

The city of Peoria, Ill., the birthplace of Clarke's Pure Rye Whiskey, is justly proud of this most popular product of one of its largest distilleries. The public has learned that this whiskey has every good quality that is claimed for it, and whenever a pure alcoholic stimulant is wanted, Clarke's Pure Rye Whiskey is selected. Attention is called to the advertisement of Colburn, Birks & Co., the sole distributors of this whiskey, in another part of the Era.

Every manufacturer of pharmaceutical specialties, whether large or small, is interested in the best methods for advertising them. All these will find something of interest in the catalogue of Roneous & Co., 617-619 West Pratt street, Baltimore, Md., which is full of illustrations showing designs of the novel advertising signs in tin, nickel, cardboard, celluloid, etc., manufactured by them. Parties who have an idea that such methods of advertising are too expensive should get prices from this firm and then modify their views on the expense question.

SPECIAL OFFER.

TO RESPONSIBLE DRUGGISTS.—Can save you 25 per cent. Will you allow us to send one to five gallons of our XXX Extract Vanilla at \$7 per gallon, regular price \$10. Guaranteed to go twice as far as any other make. We bought vanilla beans when the price was \$4 per pound; now they are selling at \$12. Order soon. Send check or reference and we will pay freight. John B. Hurtt & Co., Baltimore, Md.

Bugine

Spring house-cleaning will be sure to bring demands for something to exterminate roaches, bed-bugs and other insects. The druggist who keeps Bugine will be in a position to supply this demand in a manner which will give satisfaction. This preparation is non-poisonous to human kind and its use is attended with perfect safety. The manufacturers, the Iron City Chemical Co., of Pittsburgh, furnish plenty of advertising to call the attention of the public to the compound, and there is a good profit in it for the retailer.

Oil of Eucalyptus is now finding considerable application for throat troubles and is being put up in the shape of lozenges by the California Eucalyptus Co., Riverside, California, their product being known to the trade as the California Mission Eucalyptus Lozenge.

Look for No. 29 in this issue. It refers to a tooth powder put up by Henry C. Blair, Walnut and Eighth streets, Philadelphia. Look at the prices and make up your mind to do a little more business in the tooth powder line. Send for sample and see what it is like. Very few druggists can make up small quantities which will compare in quality and prices with Blair's No. 29.

From his close and intimate association with mankind and belligerent attitude which is displayed toward him, the common fly is credited with a large amount of misapplied intelligence. His great enemy is therefore constantly on the alert for means to encompass his destruction. One of these means which gives excellent results is Smith's "Sure Catch" Sticky Fly Paper. This paper has many advantages and has, for special features, flexible adhesive sealing herder, cross supports, and perforated center. To thoroughly understand all these features the trade is invited to send to the J. Hungerford Smith Co., Rochester, N. Y., for a miniature sheet which explains them quite plainly.

No. 608 A WINNER.

Even in an Off Year.

The favor with which our Perfumes are received in our new 8 oz. bulk bottle, No. 608, exceeds our most sanguine expectations. Nearly every wholesale drug house in the west and south now carry complete stocks, and can promptly fill orders for the leading orders at prices mentioned in the following select list:

White Rose.....	1.50	Crab Apple Blossom.....	1.50
White Heliotrope.....	1.50	Trailing Arbutus.....	1.50
White Lilac.....	1.50	Mignonette.....	1.50
Purple Lilac.....	1.50	Egyptian Lotus.....	1.50
Lily of the Valley.....	1.50	Patchouly.....	1.50
Jockey Club.....	1.50	Stephanotis.....	1.50
Carnation Pink.....	1.50	Tuberose.....	1.50
Apple Blossom.....	1.50	New Mown Hay.....	1.50
Ylang Ylang, etc.....	1.50	Rose Geranium.....	1.50
Golden Rod.....	1.50	etc.....	1.50

SPECIAL ODORS.

Our special and trademarked odors in Style No. 608 list as follows:

	PER BOT.
Linden Bloom [registered].....	\$1.75
Pythian Bouquet [registered].....	\$1.75
Santa Maria [registered].....	\$1.75
Eastern Star [registered].....	\$1.75
Violet.....	\$1.75
Black Pansy.....	\$1.75
Extra Tonquin Musk.....	\$2.50
Extra Frangipani.....	\$2.50

FOOTE & JENKS,

Perfumers,

Jackson, Mich.

No. 608, 8 Oz.

Trade tributary to New York City can be supplied by McKesson & Robbins.

J. H. Day & Co., of Cincinnati, recently furnished machinery and fitted up a plant for the manufacture of chewing gum in that city.

The habits of flies in attending funerals of their kind is strikingly shown by the advertisement of Henry W. Stecher, in this issue. It also shows why Stecher's "Stick 'Em" fly paper is popular with the public, and why the dealer should handle it. Notice the prices.

When selecting your diamonds, the R. W. McCready Cork Co., of Chicago, advise you to be particular to see that the letter "M" appears conspicuously upon them. This advice also applies to the selection of corks. When you order tell your jobber to send you "Diamond M."

Norton Bros., manufacturers of tin boxes, 36 River street, Chicago, who were recently burned out, have established a temporary office at 83 Masonic Temple. Their factory at Maywood, Ill., is still in operation, and orders are being filled as usual.

Have you seen the Improved Wellcome shape rhalet capsules made by Platen & Son? If not, send for samples, and if you have any private formulas which you wish encapsulated properly at the lowest possible prices consistent with good workmanship, correspond with this firm, which makes a specialty of this class of work.

The Standard Flint Glass Works, of Philadelphia, have quite an extensive plant devoted to the manufacture of Homeopathic vials and glass syringes, and claim to be the largest producers of these specialties in the United States. Just now they are quoting very low prices on these goods and invite correspondence from large buyers. They guarantee prompt shipment.

People have been using mutton suet for years, and it requires no argument to convince them of its healing properties. When attention is called to Buck's Arnica Mutton Suet, people know at once that the combination is a good thing. Many druggists who are handling it report it as a quick seller and one that always gives satisfaction. See prices and terms on another page.

When figuring upon soda fountain supplies for the coming summer do not forget the success which "Malto" achieved last season. The public will probably want it just the same as they did last year. See prices in advertisement in this issue. It is sold by all jobbers, and manufactured by the Malto Manufacturing Co., Cleveland, who will send sample of advertising upon application.

"True Fruit" syrups for soda fountain use, manufactured by J. Hungerford Smith Co., Rochester, N. Y., are intended for the dealer who seeks the best trade and keeps it. They are made directly from the fruit without heat, possessing that fine natural fruity flavor, and are guaranteed to keep. Write for prices and discounts on large quantities.

MAP OF THE UNITED STATES.

A large, handsome map of the United States, mounted, and suitable for office or home use, is issued by the Burlington Route. Copies will be mailed to any address, on receipt of fifteen cents in postage, by P. S. Euetts, Gen'l. Pass. Agent, C., B. & Q. R. R., Chicago, Ill.

Fahnestock's Vermifuge has suited the people for many years past, and they still call for it when they are after a worm destroyer. Proprietary remedies which have stood the test of time are always safe goods to keep in stock, and Fahnestock's Vermifuge is one of this kind.

Duroy & Haines caution druggists to be particular when buying Duroy wines to see that they are shipped from Sandusky, Ohio, and made by Duroy & Haines. They are the only producers of these famous wines, and sell direct to the retail druggist. It will pay you to try Duroy Port Wine. Write for prices and sample. See advertisement in this issue.

Another name should be added to the list of those druggists who are constantly on the lookout to see where they can buy to the best advantage. It is that of the Kentucky Paper Box Co., 146-148 4th avenue, Louisville, Ky. Write them and see what they can do in the way of carton, folding and slide boxes.

Special attention is directed to what is believed to be a decided improvement in the Index of Goods which was inaugurated in the issue of January 1st. It is believed that the readers of the Era can now, by turning to pages 21 and 23, on the first red sheets in each issue, easily find any article in which they may be interested.

Do you ever think of the wide field which is open for the employment of remedies to prevent disease, and of the demand which will follow their introduction? "Protectio," manufactured by Dr. A. L. Worden, Detroit, Mich., is a remedy of this kind, and it meets with large sales whenever such diseases as diphtheria, sore throat, colds, etc., prevail. It retails for \$1 and costs \$9 per dozen.

Preston of New Hampshire had a letter from a leading wholesale druggist the other day referring to the now famous Rivermouth Sachettes. The wholesale druggist had a line of his own which he was pushing, but frankly said in his letter that when compared with Rivermouth his line was "way in a hole." The fact is, the people that want the best Sachettes are after Rivermouth. Why not write Andrew P. Preston, Portsmouth, N. H., and find out about them?



The Patent Curved Nursing Nipple Co., of Summit, N. J., have lately introduced to the drug sundry trade a new nursing nipple, an illustration of which is shown above. The advantages claimed for it are that it is easy to hold in the mouth; the liquid is always in the nipple and the infant has no chance to draw in air through it. It is easily cleaned and fits any bottle. Write for prices, mentioning the Era.



The Jack Frost Ice Shaver advertised in this issue by Whitall, Tatum & Co., of Philadelphia, is one which has many points which will recommend it to dispensers of summer beverages. Convenience and reasonable price have both been considered in putting it before the trade, and the description given may be read with profit by all who contemplate purchasing an apparatus of this sort.

The practice of charging soda fountains with specially prepared carbonic acid gas is now so generally followed that economy and discrimination in buying is now a necessity. For this reason the Chicago Aeriform Carbon Co., 40 West Polk street, Chicago, call attention to their goods in this issue, and invite inquiries respecting the economy and satisfaction which follows the use of their product.

The Syracuse Drug Co., of Syracuse, N. Y., have an article in Van Huskirk's Fragrant Cosmetic upon which the druggist can make some money. They furnish it in four colors, white, pink, brown and black, and it costs but fifty cents per dozen, delivered. Any druggist who will send them his name will receive a stick of the cosmetic free of charge. Mention the Era when writing.

The kind of proprietary goods which can't be "cut," unless you do it yourself, is the kind which bears your own name. This fact settled, F. E. Ingram & Co., of Detroit, Mich., can settle another one for you by quoting you prices on such goods, which show that the handling of the same is profitable. Send them your name and let them show you what they can do for you in this line.

See the change in the advertisement of Bell-Cap-Sic Plasters in this issue. A new offer is now before the trade, by which one dozen Kremlin Cream and two dozen samples of the same are sent free on an order for one-half gross of the plasters. This offer is only good for a short time. Send the order direct to J. M. Grosvenor & Co., 105 Milk street, Boston, naming your jobber who will bill the plasters, and the Kremlin Cream will be sent direct, express paid.

Put your name on a postal card and mail it to the Celery Medicine Co., of Kalamazoo, Mich. This will bring you their spring offer on Celery Tonic Bitters, and a photograph showing what the goods look like. They guarantee their preparation to give satisfaction, and refund money for any goods returned. Their spring offer may be worth dollars to you, as they claim you can make nearly double the amount of money on Celery Tonic Bitters that can be made on similar preparations.

The public has been educated to believe that great curative properties reside in Celery, Sarsaparilla and Beef, therefore when they see a preparation combining all three of these, as "Compound Extract of Celery and Sarsaparilla with Beef," and see that the price is only 50 cents a bottle, they come right in and buy it. This is the latest preparation manufactured by French, Cave & Co., of Philadelphia. They put it up in same size bottles as French's Sarsaparilla, and they print the druggist's name and address upon the label and carton. See prices in advertisement in this issue, and see if there is not some money in this preparation for you.

That the tablet triturate mold manufactured by the American Triturate Mold Co., 1139 South Twelfth street, Philadelphia, is possessed of considerable merit is evidenced by the fact that it is described with cuts in the National Dispensatory, last edition, page 1238. Any druggist, however, can convince himself of the superiority and cheapness of this means of dispensing a large number of drugs by sending to the firm for prices and full description of this unique and useful apparatus.

The labels, cartons and stationery now used by druggists are a great improvement over those in use but a few years ago, yet no druggist is content with things that are simply a little better than they used to be. He now wants the best, regardless of what his predecessors used. This desire is all right, and is clearly recognized by E. B. Read & Son, Baltimore, Md., who make it a point to fill just such a demand. Write to them for samples and prices on labels, cartons, etc., mentioning the Era.

The reputation of the French for fine medicinal preparations is one which is quite well known to the general public, and the consequence is that preparations such as Quina La Roche, Rigolot's Mustard Plasters, Duero's Elixir, Brou's Injection, Bland & Chapoutot's specialties, are always in good demand. These and many other foreign pharmaceutical specialties are handled by E. Fougere & Co., 26-30 North William street, New York, who will fill all orders which cannot be filled by jobbers.

Leavenworth, Kas., March 19, 1894.

Dear Sirs:—It gives me pleasure to say that I have now used your Empty Elastic Capsules for several years and find them most convenient, in fact indispensable. My assistants have become quite expert in filling them. They are well-liked by prescriber and patient and should be used by every progressive pharmacist.

Yours truly, ADOLF LANGE.

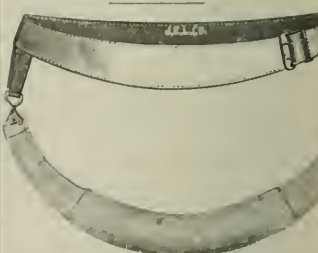
When buying tumbler holders it is a good idea to get something that is attractive as well as durable. The new style of tumbler holders manufactured by the J. C. Johnson Soda Apparatus Co., Philadelphia, are of this kind. They are strong, light, easy to clean, difficult to upset, do not catch drippings, fit several sizes of tumblers and are appropriately called the "Ideal." Sample sent by mail on receipt of \$1.25. This firm has a new design for counter soda apparatus, and will send an illustration of it upon application.

The 1891 catalogue of the John Matthews Apparatus Co., 449 First avenue, New York, is a publication of more than usual elegance, devoted to descriptions of apparatus which partake of the same character. The Climax Removable Glass Syrup Jars are among the desirable features of the Matthews' apparatus, and many users of them have testified as to their utility. The catalogue, which is sent free, tells all about them, and every owner of a soda fountain should investigate their merits. The Matthews Co. are prepared to quote prices on their new designs which will place them within the reach of all, and every prospective purchaser should compare their prices with those of other manufacturers before buying.

Hard times are generally prolific of great bargains. Manufacturers figure closely and the retailer reaps the benefit. The special offer of Schauden & Land, of Philadelphia, on page 11 of this issue, is deservedly meeting with liberal response. The new colors, "Gardenin" and "Sweet Scented Shrub," are excellent perfumes and good sellers, and with an opportunity of making 150 per cent on an investment of \$4 of \$8, live druggists are taking advantage of this offer. On orders received within the next thirty days the firm pays express charges.

One of the finest specimens of the skill of the artist and maker of books comes to us from Fritzsche Bros., New York. In the shape of a handsomely bound, finely illustrated volume, showing the various laboratories, factories and plantations of Schimmel & Co., Leipzig, Prague—Miltitz, and those of Fritzsche Bros., at Garfield, N. J. A very comprehensive history of the oil industry from earliest times and descriptions of the various processes now used by these firms has been especially prepared for this work by Prof. Dr. F. A. Fleukiger, Leipzig.

Lots of people believe that the best way to kill flies is to poison them. They will be more convinced in their belief if you show them the Green Fly Button. This new fly-killer consists of circular sheets of green poisoned paper, 3½ inches in diameter, and six of these comprise the retail 5-cent package. Their chief point of advantage, aside from their killing qualities, is that they fit neatly in the bottom of the ordinary sauce dish with no points to carry poison outside the dish. This feature is greatly appreciated by the housewife. They cost the dealer 2 cents per dozen packages, and are made by the Fly Button Co., Maumee, Ohio.



Lee's Serviettes, or Seamless Antiseptic Towels for Ladies.

These goods are made in three sizes, No. 1, smallest; No. 3, largest, and No. 2, medium and most generally used. They are medicated and antiseptic, and therefore afford cleanliness, comfort and health. They are woven without seam and cost no more than the washing of ordinary towels. A lady's toilet is not complete without them at home, and they are invaluable when traveling. They may be destroyed by burning when through with. They are manufactured by the J. Ellwood Lee Co., Conshohocken, Pa., who are supplying the London and Berlin jobbing trade with large quantities. They state that they have recently closed an order with one large firm for 5,000 gross. A sample will be mailed free of cost to all druggists who will write for one, and mention the Era.

Menn & Stubenrauch, manufacturing chemists, 83 John street, New York, manufacture all the standard pharmaceuticals and handle besides many specialties and drug sundries. One of the articles which they list is Prof. Damsch's Carbolated Sand, retailing for 15 cents, and sold to the trade at prices which leave a handsome profit. This sand contains 10 per cent pure carbolic acid, and is especially adapted for use on the floors of stores, factories, stables, saloons and closets, and on all floors not covered with carpet. Write for price list of this firm's products.

Containers for sending liquids and other merchandise through the mails are now recognized as indispensable in every well-regulated drug store. A consideration of this fact should include an inquiry as to the goods and prices of the United States Mailing Case Co., 40 Water street, Boston. Their mailing cases for liquids are admirably adapted for the purpose, and have received the approval of the post-office authorities, and their locked-corner boxes for powders and other merchandise combine a maximum of strength, with a minimum of weight. Write for price lists and circulars.

Every druggist recognizes the need of good, efficient help at the soda fountain, and he must have it if he succeeds in the business. But this is not exactly what the Beach & Claridge Co., of Boston, mean in the statement in their advertisement in this issue. The "help" they refer to is for the help, or the druggist himself, and consists of a catalogue telling all about the fine goods they manufacture in the way of soda water flavors, syrups, etc., and gives many hints and formulas for guidance in doing business. They will send the catalogue if you will simply express a desire to have it.

Have you investigated the merits of the Electric Ventilating Fans manufactured by D. H. Bates & Bro., Dayton, O.? These fans have certain advantages which make them especially desirable. They can be run on any direct current, incandescent electric light or street car circuit, and are furnished to suit currents of different voltage. They are of beautiful design, anyone can put them up, and they cannot be injured or destroyed, if prevented from rotating while the current is on the motor. If you want your rooms cool and free from flies and insects during the coming summer, investigate the "Bates" fan and motor.

It is only within late years that the soda water business has assumed such proportions as to call for expert knowledge of its various details. But such is the position of the business to-day. It requires special preparation and education to dispense soda water in a manner which is acceptable to the general public. It is true that a great deal can be learned from others, but that is not the plan pursued in these days in getting an education. Something more comprehensive is desired, and it is to fill this want that Saxe's New Guide has been prepared for the guidance of the soda dispenser. A man who absorbs the information contained in this volume is worth many more dollars in any position than the rule-of-thumb man. This increase in worth or earning capacity can be secured by sending \$3 to the Saxe Guide Publishing Co., 409 Dearborn street, Chicago, for a copy of the Guide.



Are you complaining of any decrease in sales of toilet articles and other drug novelties? Do you ever ask yourself if you are displaying such goods in a manner which will cause your customers to notice them? Do you want fresh ideas in this line? The Philadelphia Ornamental Wire Co. have a new catalogue now ready for mailing which will probably show you just what you want. It contains novelties in display stands for drugs and perfumery, sponge racks, tooth brush holders, and all descriptions of wire ware. This firm make a high grade of goods, and will make anything to order if desired. Write for this catalogue.

The reputation of the Low Art Tile Co. as artistic workers in clay is world-wide, and their productions in this line have found a place in many of the finest houses and public edifices of this country. These artistic qualities make them all the more appropriate as one of the chief features in the construction of what is now the most ornamental part of the drug store—the soda fountain. The mechanical details of the fountains manufactured by this firm are such as give the greatest effectiveness in cooling qualities with a minimum expenditure of ice, and the druggist who wishes to unite convenience, economy and beauty in his soda dispensing business will investigate the fountains made by the Low Art Tile Co., 352 Broadway, Chelsea, Mass.

Perhaps no mineral spring in recent years has come to the front with more rapidity and taken such a firm hold upon the public as has the Saratoga Victoria. The spring was discovered in May, 1892, in the building formerly used to bottle the "Champion" water at the "Geysers," Saratoga Springs, New York. The vein of mineral water was struck at a depth of 394 feet, after passing through slate rock, limestone and magnesium limestone. The flow of water is very large, yielding not less than thirty gallons per minute. The water is decidedly alkaline, and is very heavily charged by nature with an abundance of carbonic acid gas, making it extremely pungent and pleasant. The water is highly recommended for all kidney troubles, and is extensively used in the convalescent stages of typhoid and scarlet fevers. It is the ideal table water and is found on the tables of many of the leading families throughout the country.

An inspection of the catalogue of Woods, Sherwood & Co., Lowell, Mass., will be quite a revelation to those who are unaware of the great number of useful articles which can be made of wire. The drug trade will find many things which are exactly suited to its needs, both for displaying to good advantage novelties and pharmaceutical specialties and for sale to the public direct. You should have this catalogue.

The formation March 1 of the new firm of Franklin & Hyde, manufacturers' agents and brokers in druggists', manufacturers' and confectioners' glassware and supplies, 110 Randolph street, Chicago, brings before the wholesale and retail trade of the northwest two well known gentlemen. Mr. John Franklin, after a long experience in the firm of John M. Maris & Co., Philadelphia, has had the present business organized for three years past, and Mr. James D. Hyde has been for many years prominently connected as salesman with the wholesale drug business of Chicago and St. Louis. Producers and importers will find in the new firm reliable representation, and buyers may feel assured their interests will be fully protected.

Retail druggists are usually reserved and conservative in their comments on remedies handled by them, and when they do take the trouble to speak of one it is because they are thoroughly convinced from the experience of their customers that the article is one of unusual merit. Therefore the following, which is a sample selected from many recent ones received by the manufacturers, is worthy of attention from other druggists who wish a pile remedy which they can honestly and safely recommend to their trade.

Centre Hall, Pa., Dec. 18, 1893.

Parmelee Medical Co., Dansville, N. Y.:

Please send me two dozen Parmelee's Pile Suppositories. They give better satisfaction than any other remedy of the kind I ever sold. Yours truly,
J. D. MURRAY.

Regarding their new surgical dressing, recently introduced, the Norwich Pharmaceutical Co., of Norwich, N. Y., say that seventeen hospitals in New York City and Brooklyn have adopted the use of Unguentine. This certainly attests the efficacy of this remedy in the treatment of external inflammatory affections. There can be no question that Unguentine in a short time will supersede many other surgical dressings. It is composed of alum, which by a chemical process is made non-irritating, with carbolic acid and ichthyol added. These three drugs have no superiors among healing remedies, and their combination in an elegant pharmaceutical product can easily account for its popularity.

The attention of our readers is again called to the Salicylic Acid produced by the Herf & Frerichs' Chemical Co., of St. Louis. In former years all the salicylic acid came from abroad, and this accounts for the fact that many druggists are still in the habit of specifying European brands, while they might obtain an American make, which is fully the equal of any imported acid, and can also be had from any jobber by specifying H. & F. A sure sign of the absolute purity of Salicylic Acid is the melting point, which is 157° C., and Herf & Frerichs' make melts at that degree also. It will stand all the other tests prescribed by any pharmacopoeia. Buyers should give the preference in all cases to H. & F. Salicylic Acid, because it is made in this country, and is fully as good as any imported.

It is quite necessary for the successful druggist to know the alphabet thoroughly, but it is necessary to know but one letter when ordering corks, and that is the one which stands (like a certain brand of corks) at the top. Remember that the letter in question has a circle around it like the one which appears in the advertisement on the back cover in this issue.

A coin with a representation of the American eagle upon it is a very desirable possession. It is the same way with white lead. A package of this material with the well-known brand of the Eagle White Lead Co., of Cincinnati, upon it is quite sure to give satisfaction to the consumer, and this is the kind of goods which gives satisfaction to the dealer.

Besides manufacturing rubber stamp outfits, which every druggist ought to have, W. H. Dietz, 117 Dearborn street, Chicago, makes many other novelties. One of his late ideas is the Columbia Postal Scale. Most any scale will weigh postal matter, but this one not only weighs, but tells the amount of postage required on all the different classes of mail matter. This is done by simply placing the letter or package on the scale pan, and the machine does the rest. There is no adjusting of weights, or the poise upon the scale beam, as an indicator points to the correct weight, and the amount of postage required is printed opposite the weight figures. You will have to see this scale to appreciate it. Send for illustrated circular, which tells all about it.

IMPROVED BALANCE BEAM.

The general introduction of the metric system following the appearance of the United States Pharmacopoeia will doubtless cause a vast amount of confusion among those unfamiliar with its divisions. The Springer Torsion Balance Company, of 92 Reade street, New York, have provided for embarrassments of this kind by introducing a triple graduated scale beam. This beam is graduated in three systems of weights—avoirdupois, Troy and metric—and the divisions of each, with their comparative values, can be readily seen and marked off. Besides its practical value at the counter, the new beam will prove a useful instrument for familiarizing its users with the metric system.

The New Peck Cash Register No. 15 is one in which is especially adapted for the use of druggists, and the advertisement in this issue of the Peck Cash Register Co., Syracuse, N. Y., gives a very good idea of what it looks like. It consists of a desk cabinet, in the top of which there is an opening five inches long and one and one-half inches wide. The upper portion of this opening is covered with glass, immediately under which runs a continuous strip of paper from a roll, ruled in columns, on which can be recorded sales, disbursements and other cash transactions. When a sale is made it is recorded on the paper through the opening from that purpose. The proper combination then being pressed, the cash drawer is released and the record of the sale is moved under the glass, where it can be seen, but not tampered with, and a blank space is presented for entering the next transaction. This affords a means of keeping a complete record of each day's sales, and each man's sales can be kept separately.

To meet the very decided demand which comes from the medical profession for surgical dressings which can be kept perfectly fresh until wanted for use, the L. Ellwood Lee Co., of Conshohocken, Pa., have recently introduced Lee's Air-Tight Carton, a container which is, as its name implies, intended to preserve gauzes, etc., from all atmospheric influences or disease germs and enable the surgeon to use a fresh package for each and every dressing. The gauze is put up in one and five-yard packages. Many of the large hospitals of the country have adopted this method of handling surgical dressings, and the fact that they can be preserved indefinitely will encourage the drug trade to handle them and encourage the physician to patronize the pharmacist for such articles. Write for prices, mentioning the Era.

Every pharmacist has his own views as to the best and most profitable elixir or wine of calisaya for him to handle. Many manufacture and sell their own preparations. This is one view of the question. The other is that advanced by Charles Allen Itted, 9 Cliff street, New York, and is based upon qualities which he claims for his Calisaya La Rilla. This preparation is the exclusive product of one laboratory, and this fact accounts for the unvarying high standard which distinguishes it. This buying and manufacturing in large quantities enables the manufacturer to quote prices which are ordinarily beyond the reach of those who put up similar preparations in a small way, and the trade will do well to correspond with Mr. Reed regarding his specialty.

C. A. Julian, M. D., Louisville Medical College, in N. C. Med. Journal, writes in regard to Antikamnia: "This is a combination of elements belonging to the coal-tar group, and is an American product. It is a white crystalline powder, odorless, and has a slightly burning taste; soluble in hot water and in diluted alcohol, but not in cold water. It acts as antipyretic, analgesic and anodyne. The importance attached to this drug, I think, is due to its anodyne and analgesic power, and the celerity with which it acts. As an antipyretic in fevers, it acts more slowly than antipyrine but is not attended with as much depression of the cardiac system and cyanosis. Whenever a sedative and an analgesic together is indicated, this remedy meets the demand. In severe headaches it is the remedy par excellence."

Buyers for drug houses will recognize the want of a systematic method for filing quotations and samples, whether by catalogue, circular, letter or by salesman. The Folding Paper Box Co., of South Bend, Ind., is offering one that it believes to be perfect in the record it makes, and in the time required, which is less than that called for by most others. This system has stood the test of more than a year's use, with increasing demand for its sale. Send for copyrighted description, a reading of which and nothing else will adequately give a correct impression of what it is, as a mode of doing things. It is in use in hundreds of the largest establishments in the United States. A "case" with 21 small boxes and 6 large ones, with index and all necessary fixtures, suitable for retail druggists, costs only \$15.00.

"Komseals" are made of rice-flour and water, are absolutely soluble, elastic, tasteless, digestible and will remain unimpaired by climatic changes for years. They are just the thing for dispensing powders. Twelve million were sold in Paris last year. J. M. Grovener & Co., 105 Milk street, Boston, are the American agents.

Have you seen the "Gypsiue Advocate," the attractive little 4-page paper used to advertise Gypsiue? It tells the public all about this new wall coating, and the bright reading matter makes it a valuable advertisement for the dealer who handles Gypsiue and has his advertisement in the publication. Send for a copy and judge of its merits. As for Gypsiue itself, it is a stone-like substance which sets solid on the wall, does not flake off, and is used on old walls and rough surfaces prior to painting. It is admirably adapted for relief work, being applied to the wall thick and then applied, combed or worked into any pattern desired. It is also used as a disinfectant around sinks, closets, etc. The druggist who keeps it and distributes the "Advocate" among his customers will surely have a good demand for it. Sample of color cards and advertising will be supplied upon application to the Diamond Wall Finish Co., Grand Rapids, Michigan.

From present indications the innocent fly is going to have a hard time of it this summer. His latest affliction is a sticky paper put upon the market by the Detroit Fly Paper Co., Detroit, Mich., which has many attractive features (or flies). Knowing that the chief personal characteristic of a fly is curiosity, and that nearly every fly acts just like all the rest of his family, this new paper has decay flies printed upon the surface upon which the sticky composition is spread. This acts as an incentive toward close investigation, and is quite effective in rendering the inspection a protracted one. The paper itself is a new product, made impervious to the oily mixture, and the border, which is embossed, is part of the sheet and cannot chip off and litter up the carpets and furniture. Perfect satisfaction is guaranteed. A sample box will be sent on receipt of 40 cents. See advertisement on page 30 this issue, and when ordering mention the Era.

The Hero Fruit Jar Co., of Philadelphia, call attention to their new whiskey bottle stopper to be used on bottles containing fine brands of whiskey, to prevent refilling. They admit that numerous stoppers for the same purpose have been brought forward of late, but they think that the years of experience gained by them in the manufacture of all kinds of bottle stoppers gives them a great advantage in the production of such an appliance. They know that an expensive or complicated stopper is useless for the purpose, and they put forth the following claims for this one: Thorough prevention of refilling; strength; compactness; cheapness; great convenience, for in using this there is no cap to be taken off, but merely two turns of the hand for opening and the same for hermetically closing; free flow, but perfect cleanliness; no slopping, dripping, or waste; simplicity and attractiveness. Send to them for sample and price, mentioning quantity desired. See advertisement in this issue.

In the last issue of our Druggists' Directory we classified the Sagar Drug Co., Duluth, Minn., as wholesale and retail druggists. This, they inform us, is an error. They are an exclusive jobbing house, and have no intention to retail, nor have they any facilities for carrying on that branch of the drug business.

RELIABLE AND SALABLE AT ALL TIMES.

Planten's Capsules have been on the market since 1836, and their sales continue to increase steadily as the years pass, fully demonstrating that their reliability has become well recognized and firmly established, and further that "the best" goods always remain popular with consumers and are most profitable to keep in stock. The most popular in demand of these goods are the Pure Copaiba, Compound Copaiba and Cubebs (also known as Planten's Black) and the pure Sandalwood Oil Capsules in 15, 10 and 5-minim sizes hard, and the 10-minim size elastic, soft. These as well as the Peruloids, 5-minim, with several of the other many varieties can always be carried in stock to advantage. The jobbers all carry Planten's Capsules, and you can get your supplies from them in lots to suit, and kinds they may not have on hand will be sent by the manufacturers on receipt of the list price.

At a time when the retail price of soda water has apparently reached its minimum and competition requires great outlay for attractive apparatus, it is quite important that the dealer in this beverage should turn his attention to the cost of production. Marble dust and sulphuric acid are cheap, the apparatus is not highly expensive and the cost of labor in making gas is perhaps nominal, but in spite of the apparent cheapness of the old process, The Liquid Carbonic Acid Manufacturing Co., 437 Illinois street, Chicago, claim that they have something still cheaper. The apparatus they furnish costs no more than the old generator and they furnish the gas in liquid form, ready for use, whenever wanted, cheaper than it can be made by the ordinary dealer. When competition, hard times and a tendency to lower prices seem to be ruling forces, the man who is alert for business always looks out for things of this kind. Perhaps you are that kind. If so, the firm referred to will be glad to send you their catalogue.

THE PAINT TRADE REORGANIZED.

The Paint, Oil and Varnish Trade Section of the New York Board of Trade was organized on March 20, with a membership of thirty firms. The meeting was called to order by Mr. C. H. Patrick, Mr. John A. Elmsdorf, of Edward Smith & Co., was elected permanent chairman and director in the Board of Trade, and Mr. C. H. Patrick permanent vice-chairman. Mr. J. W. Coulston was elected secretary and treasurer. The executive committee was chosen as follows: H. Merz, A. B. Garner, R. Pyatt, W. E. Lucas, George W. Fortmeyer, M. D. Eger. The executive committee was authorized to appoint the standing committees.

The first Tuesday in each month at 1:30 p. m. was agreed to as the day and hour for regular meetings of the section. The executive committee held its first meeting Tuesday, March 27, at 1:30 p. m.

DECORATIVE HINTS.

In commenting upon the prevailing tastes and styles for interior decorations, The Plumber and Decorator, says: "White and gold for interior decoration has long been a favorite and of late years has gained in popularity. This increase in popularity will probably lead to white enamel effects being used for interior work in connection with a moderate amount of gold pickings. Light cream, very light pink, light sap green in enamel with gold in each case, renders an interior very charming, provided of course, that the colors are used the reverse of freely, and the gold is employed only as a means of giving emphasis to the decoration and relieving from its insipidity."

"Much of the beauty of schemes of color applied to the interiors of dwellings is due to the use of those colors known as transparent. Not that these allow the complete passage of rays of light, but that when superimposed the ground color has a modifying influence upon their hues and tones, giving them a depth and richness such as cannot be obtained by any opaque or heavy-bodied color, which of itself constitutes a compact film. Leading transparent colors are crimson, scarlet, purple, blue, green, yellow and brown. They are sometimes used for glazing, being first rendered sufficiently transparent by the admixture of a large proportion of vehicle.

"Between heaven and earth, the predominant colors in nature are seen in the green of trees, in the purple of distant atmospheric effects, and in the orange color of clouds at sunrise and sunset. These colors—green, purple and orange—are called secondary colors; and together with admixtures of the neutrals to produce tints and tones, should be used on walls, letting the secondary wall colors harmonize with the primary ceiling color. Thus, if a ceiling be a tint of blue, the wall should be a tone of orange; if the ceiling be pink, salmon color or a tint of red, the wall should be a neutral green; if the ceiling be yellow or cream color the wall should be, purple in tone."

THE LACQUER TREE.

Japanese lacquer, properly so called, is the gum of a tree, the *Rhus vernicifera*, which is laid, coat after coat, upon thin sheets of wood or some other substance. The most extreme delicacy and patience are required, and many hundreds of hours are spent in the successive dryings demanded by the lacquer; and when all has been done, there follows the elaborate decoration in gold, silver, other metals, or mother-of-pearl. The art is of great antiquity.

Mr. Ernest Hartk knows no reason why the lacquer tree should not be grown in this country, says the Plumber and Decorator (London). Its sap, which is used as the material of all lacquer work, is a natural essence, having a vast superiority over any varnishes used here. Unlike even copal, which is an artificial mixture of resin, fatty oils, and turpentine, Japanese lacquer is a ready-made product of nature, which, when hardened, is of mirror-like smoothness, unaffected by either acids or hot water, and of great duration, never splitting or cracking.

THE MARKETS.

The fluctuations noted in this market report are those affecting goods in original packages and jobbing lots. A complete price list, showing quotations as made by jobbers to retailers, will be found upon another page under the head of "Prices Current."

ADVANCED.—Balsam Peru, Cod Liver Oil, American Saffron, Mexican Sarsaparilla, Corlander Seed, Benzoic Acid, Blue Vitriol, Cascara Sagrada, Permannanganate of Potash.

DECLINED.—Opium, Camphor, Nitrate of Silver, Oil Peppermint, Fennel Seed, Oil Orange, Oil Lemon, Oil Cubeb, Gum Chicla, Guarana Golden Seal Root, Sulphur.

New York, March 22, 1894.

Jobbing orders have been coming to hand rather freely, giving the general market a fairly animated appearance, but on the other hand, the larger dealers and those interested in the movement of round lots, are inclined to complain regarding the slow demand. With the financial affairs of the country on an uncertain basis and discussion of the tariff question unnecessarily prolonged, it is not surprising that buyers should adhere to the policy of purchasing almost wholly in accordance with actual necessities, and no improvement of consequence need be expected until those two important matters are definitely settled. This opinion is based chiefly on the fact that, notwithstanding the unusually low prices ruling for several commodities, there is apparently a steady determination not to anticipate the wants of the future. It is evident, however, that the majority of holders are not disposed to force business through the medium of concessions, and the general undertone of the market indicates steadiness, with the fluctuations in values mainly the result of natural causes. An important factor is the continued light stocks at interior distributing points, which, under ordinary conditions, must sooner or later be replenished, and holders are in a measure, justified in anticipating an early improvement in the demand for large parcels.

OPUM.—The market has continued to reflect an easy tendency with the course of values toward a lower basis, quotations for both spot and futures having declined fully 20 cents per lb. during the past fortnight. The reduction in price, however, has not stimulated the demand, and inactivity has been the characteristic feature, with buyers not disposed to exceed current requirements when making purchases. The spot supply has been materially augmented by additional large arrivals, and as manufacturers and other large consumers have abundant stock for the present, there is every probability of a further accumulation, as the recent liberal purchases in primary markets for American account have not yet all come to hand.

POWDERED OPUM.—Is corresponding lower in sympathy with the gum and only limited quantities are moving.

QUININE.—The volume of business has been of full proportions recently, the movement being wholly for consumption and the market retains a firm under-tone. The recent sale of bark in London and Amsterdam have resulted in the establishment of a higher range of prices and it has been generally anticipated that

manufacturers would notify their agents of a further advance in Quinine, but no such intimation has yet been received, and orders are freely looked at the old range of quotations. American makers report a continued fair movement at steady prices.

MORPHINE—Is moving steadily on contract orders, but the current demand is less active, and manufacturers' prices are unchanged.

MAIZE OIL—Grain is unsettled and irregular owing to offerings by producers not controlled by the combination. The rebate system of the latter organization, however, prevents the larger buyers from taking advantage of the low prices named by outside producers, and only the smaller buyers are benefited. There has been no further change in Wood, but a somewhat steeper feeling is manifest, and a reaction in values is considered probable.

GLYCERINE—Sharp competition between local and western manufacturers has had an unsettling influence, and although dealers still name the former range of quotations, concessions are frequently made to regular customers.

CAMPHOR—Free offerings of the Japanese product have resulted in domestic manufacturers marking down their prices 3 cents per lb. on both barrels and cases.

BALSAM COPAIBA—Is firmly held at former figures and a good trade demand is noted for Central American. The outlook is favorable to a continued steady market in view of the fact that recent arrivals to first hands are being shipped to foreign markets where better prices are obtainable.

BALSAM TOLU—Is selling fairly to consumers at unchanged prices.

BALSAM PERU—Continues to show a hardening tendency under the influence of reduced stocks together with unfavorable crop reports from primary sources of supply, and values show a further advance of about 10 cents per lb.

BALSAM FIR—Canada continues to offer with increased freedom, and the tone of the market is easy but lower figures are not openly quoted. The demand is light and unimportant.

COD LIVER OIL—Continued activity has prevailed during the period under review with a further material improvement in prices, and buyers of large parcels have been unable to fill their orders. Holders are unwilling to sell except in a jobbing way, and from present indications the outlook warrants still higher figures as cable quotations from Norway are already above the parity of current values here. It is conceded that the catch is unusually small and even with only an average consumption there is likely to be a shortage before the next catch can be available.

AMERICAN SAFFRON—The hardening tendency previously noted has resulted in an advance of 2 cents per lb. by the principal holder. The demand has been active with buyers willing to take liberal quantities, but only small parcels are obtainable and the trend of values is toward a still higher basis.

NITRATE OF SILVER—Has again been reduced 1 cent per oz. by the manufacturers.

CACAO BUTTER—Is in rather better supply and slightly easier for bulk, but there is no material change in values. Cases continue scarce and firm.

OIL PEPPERMINT—H. G. H. is offered more freely at concessions from

previous prices and the various grades of bulk oil show a lower range, but the market is without much activity and the business reported is only of a jobbing character.

JALAP—Fresh supplies have been arriving from primary markets, but the liberal receipts being of desirable quality, buyers have purchased freely and values indicate continued steadiness. In fact, for new goods sellers are disposed to ask an advance.

MEXICAN SAIGAPACHILLA—Is firmer and all the available stock in first hands is said to have been taken up by dealers and exporters. For jobbing quantities a fractional advance in prices is noted.

CORIANDEI SEED—Available stocks have been steadily shrinking and sellers have further advanced their selling limit. The principal holder still declines to quote.

FENNEL SEED—New crop German continues to arrive freely and values show a further decline.

OIL OF ORANGE—Sanderson's brand has been reduced 10 cents per lb., and other varieties are proportionately lower.

OIL OF LEMON—Competition between sellers of the better grades has been rather keen, resulting in a decline of 5 cents per lb. in the various leading brands. Primary markets, however, show continued steadiness.

CUBE OIL—Has developed a weaker tendency and sellers name a lower range of quotations.

MANNA—Values are practically unchanged, but slightly off quality small cake is offering at a shade under quotations for prime.

CAFFEINE—Is held firmly at the advance previously reported and holders are indifferent sellers.

SAL AMMONIAC—Shows increasing firmness and some holders have further advanced their views regarding prices.

BENZOLIC ACID—True German is higher abroad and a stronger feeling is noted here. English is quiet and nominally unchanged.

BLUE VITRIOL—Is tending upward under the influence of reports intimating that all the large manufacturers are about to form a combination with a view of controlling the general output, and establishing prices upon a better paying basis. Current values are fractionally higher and only small parcels are available at inside figures.

CHICLE—Has ruled easy under pressure to realize and liberal sales are reported from first hands at a decline of about 2 cents per lb. One or two other parcels, recently arrived, are pressed for sale, but the bulk of the stock is held with a fair degree of steadiness, the limits of shippers being considerably above current quotations.

ASSAFOETIDA—Is ruling strong under a good trade demand, and spot stocks of desirable grades are steadily diminishing.

GUARANA—Continues to rule weak under liberal offerings and values show a further decline of about 5 cents per lb.

CASCARA SAGRADA—Has been in active request, with rather free buying by fluid extract manufacturers, and a firmer feeling has developed with values for the more desirable grades showing a fractional advance.

GINGER—New crop Jamaica has been arriving in liberal quantities, but the quality of receipts thus far is considered hardly suitable for bleaching and the

bulk of sales has been to grinders. Values of bleached are consequently steadily maintained at previous figures.

HEPACUANIA—Continues to rule firm in foreign markets, but the situation here is unsettled owing to competition between sellers and any inclination to advance prices is checked by free offers to accept old figures.

GOLDEN SEAL ROOT—Is offering at slightly lower quotations, and moderate transactions are reported at the decline.

PERMANGANATE OF POTASH—Has been advanced 1 cent per lb. owing to decreased available stocks.

CREAM TARTAR—The market retains a firm tone with a fair average business in progress, chiefly in powdered.

CUTTLE FISH BONE—Is still available at the comparatively low prices with the consuming demand fair, particularly for prime Trieste.

SENNA—Intermediate grades of Tinnevely continue in good request for consumption with values ruling strong and tending upward.

SUGAR OF MILK—Decided activity has followed the material concession in prices previously referred to, and liberal sales have been made to the consuming trade at the lower range. Large buyers have been anxious to make contracts, but manufacturers decline to book orders beyond the usual thirty day period and some predict an early improvement in the general condition of the market.

VANILLA BEANS—Are moving freely in limited quantities with all varieties sharing in the general distribution and values are ruling strong.

SULPHUR—Resublimed has been reduced 1/8 of a cent per lb. for both roll and flowers.

THE SULPHUR INDUSTRY OF JAPAN.

Sulphur, called in Japanese "Iwo" or "yuwo," is found as a glossy product of sublimation, often covering the crater walls, crevices and clefts of active and extinct volcanoes throughout the country. By far the greatest amount of Japanese sulphur is formed by decomposition of sulphureted hydrogen of the very numerous solfataras. The export trade in this article has grown rapidly since the opening of the country to foreign commerce. In the year 1838, the earliest date for which reliable customs statistics are available, there were exported 131 tons, valued at \$6.49. In February, 1839, there were 84 mines in operation, of which only 13 produced annually more than 100 tons each. Ninety-five other mines were located and under trial excavation by government permit. No official estimate has been made of the quantity of sulphur still available. The total product of the country during 1891 (that being the latest year for which reports are published) was 44,565 tons, of which 21,923 tons were refined sulphur.—U. S. Consular Report.

The United States consul at Bradford, England, in reporting upon the standard of living in his district, says that it is "high," and in support of his statement further says that the people have four and sometimes five meals per day, viz.: breakfast in the morning, dinner or luncheon at noon, tea at 5 p. m., and supper at 8 or 9 o'clock in the evening.



W. M. SEARBY.

IN considering the prominent educators in the profession of pharmacy, the name of Prof. William M. Searby, of San Francisco, cannot be overlooked. The California College of Pharmacy was largely the outgrowth of his forethought and labors, and to him, perhaps, more than any other man, it owes its present high rank and standing in the profession. He has been identified with it since its formation, during which time he has served it continuously either as trustee, president or professor of materia medica, the latter a position he assumed in 1873.

Prof. Searby was born in Lincolnshire, England, in 1833, and received his education in one of the many excellent boarding schools in that section. At the age of 14 he was apprenticed to the drug business in the person of E. W. Martin, of Guildford, Surrey, where he continued until

1855, when he entered the laboratory of the Royal Pharmaceutical Society of Great Britain for a term of months. Passing the "major" examination in 1856, he immediately entered into business relations with his brother-in-law, the two conducting a successful pharmacy in the city of Norwich until 1860, when he left for Vancouver Island, British North America, carrying on the drug business at that place until 1866. In that year he removed to San Francisco, engaging in the practice of pharmacy, where he is still located, a member of the well known firm of retail pharmacists, Searby, Zeilin & Co.

As a writer he has done much to advance the educational and professional status of pharmacy in this country. In addition to his many other duties he became the editor and publisher of the Pa-

acific Druggist in 1892, a relation which he was forced to sever the present year on account of its arduous demands upon his constitution and the press of other business and professional engagements.

Personally, he is a man of strong convictions of duty, of force of character, earnest and zealous in not only his business, but in everything that pertains to the advancement and elevation of his chosen profession, and, as one has justly said of him, "he has looked on the outside sufficiently to know that the drug store is not the entire universe, and he is willing to do his share in the battle of life that others may derive benefit besides himself."

Prof. Searby is a member of the American and California Pharmaceutical Associations, dean of the California College of Pharmacy and an able and fluent speaker.

ENTERED AT THE DETROIT OFFICE AS SECOND-CLASS MATTER

ESTABLISHED 1897.

THE PHARMACEUTICAL ERA.

SEMI-MONTHLY.

Issued on the 1st and 15th of Each Month.

D. O. HAYNES & CO., Publishers,
DETROIT, MICH.For Subscription and Advertising Rates see
advertising page 30.**REMOVAL NOTICE.**After May 1st, 1894, the publication office of
THE PHARMACEUTICAL ERA will be at

106 Fulton Street, New York City.

With increased facilities and the additional advantage of being in close touch with the leading drug markets, we expect to introduce many new and valuable features in the journal, which will be to the advantage of our subscribers and advertisers.

D. O. HAYNES & CO.,
Publishers.**EDITORIAL.****EXAMINATION QUESTIONS.**

We omit for this number publication of replies to Examination Questions, Series No. 2, it being found advisable to delay this matter until our May 1 number, when the names of the successful contestants, together with the portrait and sketch of the one standing highest in the competition, will be presented. We beg our readers' indulgence for this unavoidable delay, occasioned merely through inability to get the matter ready in time, because of the fact that the present issue we were obliged to send to press somewhat earlier than customary.

THE TEACHING OF PHARMACOLOGY.

The second installment of the article upon this topic is presented elsewhere, and we are pleased to see that it bears illustrations of pertinent connection with the text. We have seen evidences of considerable interest in the paper, and believe the present portion, with the conclusion to appear in the next succeeding number, will combine to make a presentation of the subject of notable worth to teachers of pharmacy. There is a decided disposition on the part of the more progressive element among pharmacists to strive for the attainment of a higher standard of proficiency, and teachers and practical men alike give their most careful consideration to all propositions looking to this end, and read with avidity papers bearing generally or particularly upon the subject of teaching pharmacy.

VERY FRANK.

We quote from a Massachusetts paper the following exceedingly frank statements: "The statesmen who are proposing to tax proprietary articles, cosmetics, perfumery, etc., doubtless see only increased revenue for the government, but do not see the vast injury which is certain to result, not only to manufacturing advertisers, but to the entire press of the land. The sale of the articles upon which a tax is proposed is brought about by advertising in the newspapers, and the expenditure in this direction during every year amounts to very many millions of dollars. If the tax proposed by Congress is carried into effect, it will result in the

dissolution of many worthy advertisers who manufacture standard preparations, and a very large curtailment of all advertising expenditure throughout the press of the land. The increased amount of revenue which the government will receive will not by any means equal the decrease in the amount of advertising patronage which the press of the land now receives."

THE ALCOHOL TAX.

The proposed increase of internal revenue tax on spirits is bringing out vigorous protest from the drug trade. The attempt of Senator Cockrell and others to belittle the importance of the matter and to impugn the motives of the druggists, has but served to secure wider and more determined agitation. Were the public to fully understand the relation borne by alcoholic compounds to the public weal and prosperity (leaving out of consideration their use as beverages) there would rise a stone wall of opposition to any attempt to increase the cost to the consumer of spirits and the articles in whose manufacture they are essentials. We have no quarrel with those who would tax whiskey and brandy as beverages, but a heavy tax on alcohol has no reason in justice or necessity. It means added expense in the sick room, a numbing influence upon many arts and industries. Raise the cost of liquors as beverages and luxuries as much as you will, but as necessities in the sick room and in manufactures let them be free. The cost of a beverage is not prohibitive of its use, but heavily taxed alcohol is a bar to its employment in a host of industrial operations. The drug trade should keep hammering away at this matter till reason enlighten our law makers, and this relic of war taxes on necessities become of the past.

COUNTER-PRESCRIBING ILLEGAL IN CANADA.

Our Canadian pharmaceutical exchanges have been giving considerable attention to a recent decision in the Common Pleas Division of the Divisional Court, wherein the judge refused to quash a summary conviction by the police magistrate of a druggist charged with illegally practicing medicine. The judge's interpretation of the law is of particular moment to Canadian druggists and may interest their brethren in the states as showing where the line of conduct must be drawn in order to be safe. We make use of the Canadian Druggist's report: The alleged offense in this case was indicating a medicine for symptoms described by a customer and selling a bottle of it at the regular price. The defense, instead of being a denial of the charge, was an attempted vindication of the practice by contending that this was not practicing within the meaning of the act, and, even if it was, it was not for gain, and even if it was for gain, the defendant was entitled as an apothecary, so to practice.

The court held that there was evidence of practicing medicine on which a magistrate might well convict; that it was practicing for hire or hope of reward, and that the defendant's registration under the pharmacy act did not qualify him to practice in the same way that one registered under the medical act as a physician and surgeon could practice. The judge held that a druggist can properly

tell a customer the name of a remedy for a disease, or even tell him which of several remedies he deems his best, but can not legally inquire into the customer's symptoms to ascertain the nature of his ailment and then indicate the remedy.

DEATHS FROM POISONOUS DRUGS.

One of our English contemporaries, some time ago, made the statement that carbolic acid is responsible for more deaths (in Great Britain) than any substance in the pharmacopoeia. This was in connection with some comments under the caption, "Carbolic Acid and the Pharmacy Act." The conditions governing the sale of poisons in England are different from those obtaining here, and our contemporary's exposition of the matter would have little application in America. But it seems that some readers, notably many makers of carbolic acid, have seen fit to question the statement mentioned, and offer some statistics regarding deaths from drugs, which are of very general interest aside from any bearing upon the particular case in question. We are told that the deaths in 1891, classified according to their causes, make the following showing: Drugs, 296; scheduled drugs, 197; unscheduled drugs (not including carbolic acid), 68; carbolic acid, 31. In another comparison we find that during the same year carbolic acid was responsible for 31 accidental deaths and 63 suicides, while the respective corresponding figures for laudanum were 97 and 53, a showing in favor of carbolic acid of 94 to 150. The articles named seem to be favorites among our British cousins as agents for shuffling off this mortal coil. The American revolver and the more sensational atropine find greatest favor here. But, in all sober earnest, there seems to be very great necessity for some way of making it impossible for the general public to obtain drugs of potent nature, which, in ignorant, careless or wilful use, may cause the loss of human life.

OWNERSHIP OF THE PRESCRIPTION.

We have read with great pleasure the views of the Medical Record upon this much vexed subject. It is considered dispassionately and logically, and the point of view is shifted as necessary to represent the interests of physician, pharmacist and patient. The conclusion arrived at is that the pharmacist is the owner of the prescription, as has also been held in several legal decisions. A review of the arguments leads naturally to this conclusion, and we congratulate our contemporary upon its able exposition of the case.

What and whose are the rights and privileges to be considered? The physician writes a prescription intending it to be used only in accordance with his directions, he is not responsible beyond this, and if the patient insists upon disobeying orders, the physician does not share the risk or become accountable for any bad results. In an equitable sense, says the Record, the prescription is the patient's property only in so far as it can serve the specific purpose for which given. When these conditions have been met, the prescription, so far as prescriber and patient are concerned, practically has no more existence than if it had never been written.

When the patient is no longer in need of it medically, and persists on his own account in repeating the prescription, he is appropriating that which, profession-

ally speaking, does not belong to him, and he does a still greater wrong when he gives it to another, whom it may seriously harm, and then the new man who takes the medicine is the bigger fool of the two.

But just here the pharmacist comes in. While there is no law to prevent a patient repeating a prescription as often as he pleases, it is ethically wrong for the compounder to allow him to do it. The prescription is not in any sense so much the property of the druggist that he can do what he pleases with it. It is simply a particular order for drugs, and can in no proper sense be used as a general one on demand by any would-be customer. The pharmacist places the prescription on file as a legal evidence that he has fulfilled a special contract. It is, in fact, his only protection against subsequent damages arising from alleged inaccuracy in compounding, or mistakes in the selection of ingredients. But he owns it as a voucher only, and cannot legitimately use it for any other purpose. Consequently, when he attempts to do otherwise he is in every way transcending his functions, and acting most unjustly to both physician and would-be patient.

The pharmacist is responsible for the proper compounding of the prescription, and has a right to it as a voucher. To be sure, there is no law to prevent his repeating it in any manner he chooses, and the patient, or any one else, can buy the compound of which it is the order if the druggist chooses to sell the same; but if the mixture contains any poisonous ingredients, or the patient can claim to have been damaged by taking it, the compounder is liable for damages as a seller of poisons without license. In case of any serious perversion of the original intent of the prescription, both parties in the action are culpable, and take extra responsibility at their peril. In ordinary cases, however, no legal interference is contemplated. If a druggist recommends the prescription to a stranger, he virtually attempts to give him medical advice, which opens him to the charge of practicing without legal authority.

Unfortunately, there is no remedy that will legally fit such unprofessional usages. The physician has no power to insist upon a return of his prescription or forbid its indiscriminate use, save on purely professional grounds of common courtesy. When the prescription is given to the patient it is virtually beyond the prescriber's reach. The patient, having paid for it as part of the advice given, claims the right to use it for himself as often as he sees fit, and can, with the druggist's consent, secure a copy of it for such purposes. It is usual, however, for the pharmacist with a proper moral sense to respect the wishes of the prescriber, and when he does not do so it is also customary for the physician to obviate the necessity of having any difference of opinion upon the subject in future by advising the patient to patronize some other shop, or he retaliates in kind by furnishing his own medicines whenever suitable opportunities offer.

PIXOL.—A soluble wood tar preparation; 3 parts of wood tar warmed with 1 part of soft soap, this gradually mixed with 3 parts of 10 per cent KOH solution. It is a transparent solution, miscible with water in all proportions. Disinfectant properties equal to Lysol.

RESTRICTING THE USE OF OPIATES.

A bill, referred to by our Buffalo correspondent, has been introduced into the New York legislature, and is causing considerable talk in the drug trade. It provides that:

1. No pharmacist, apothecary, druggist or other person shall sell, give away, dispose of, or offer for sale, except to dealers supplying the trade, and regularly licensed practicing physicians, surgeons, dentists and veterinary surgeons, any opium or morphine, or any chloral or cocaine, or any preparation containing opium or morphine, or any form of opium or morphine of them, except upon the written order or prescription of a regularly authorized practicing physician, stating the date when issued and the name and place of residence of the person to whom issued, and within two days after the date contained in such prescription, or fill or refill more than once prescriptions containing opium, morphine, or cocaine, or any one of either of them, or cocaine or chloral, in which each adult dose shall exceed of opium one-quarter of a grain, or of morphine one-twentieth of a grain, or of cocaine one-half of a grain, or of chloral 10 grains, and the packages containing such prescriptions are labeled showing the particular form of such drug, and the quantity of such drug contained in each adult dose.
2. No physician, surgeon, dentist or veterinary surgeon shall supply his patients with opium, morphine, chloral or cocaine in doses greater than is specified in the first subdivision of this section, except the package containing the same is labeled showing the particular form and the quantity of such drug contained in each adult dose.
3. Every physician residing in the state who gives a prescription for opium in any form, cocaine, or chloral, shall keep a record of the same in a book kept for that purpose, giving the name of the patient and the date of each prescription.
4. No person shall manufacture or sell, or offer for sale, or give away, or supply to any patient or propriety medicine containing opium, morphine, chloral, or cocaine, in any form in which each adult dose shall contain such drugs in such quantities less than is specified in the first subdivision of this section, except upon the packages containing the same are labels upon which is legibly and plainly printed or written in red letters and partly written in red letters the name of the particular form of such drug used, and the amount of the same in each adult dose of medicine.

Much opposition to this proposed amendment has developed. It certainly is very radical in its provisions, its framers evidently believing that there is altogether too much laxity in the use and sale of narcotics. It is quite natural that druggists and doctors should be ranged against it, for its observance would mean considerable annoyance in the matter of registration and none of us like any departure from the old established order of things, and be hampered by little details. But are not the animus and intent of the bill good? Morphine, cocaine, chloral and the like are dangerous agents, quick to form habits destructive of health, morality and reason, and no restriction should be deemed too onerous which will in part or whole prevent their easy purchase and illegitimate and indiscriminate use. The physician objects to keeping a record of his prescriptions as proposed, and it would be very hard to enforce this regulation. But he is frequently the real cause of the formation of the drug habit by the patient through his readiness to prescribe it. The druggist contributes to the result by supplying the drug on demand. We are inclined to think well of this measure, for if rigidly enforced it must make it very difficult to procure and make unauthorized use of these drugs. There are of course some weak and objectionable portions in

the bill, but its purpose seems good, for there is not a doubt that there are doctors and druggists who will bear watching in this matter. The section relating to patent and proprietary preparations is excellent; manufacturers should not be allowed to use opiates at all in preparations advertised and sold to the general public.

It may be there are real objections which are not readily apparent, but we fail to discover anything likely to prove detrimental to the general well being of the public, for whose protection it is devised.

We are reminded by this discussion of a paper read before the Michigan State Pharmaceutical Association two or three years ago, by a well-known pharmacist. In this paper occurred these remarks:

"To what extent are we warranted in selling opiates? Are we justified in endeavoring to increase their sale? Are we true to our conscience when we meet the price of another dealer as represented by the would-be purchaser? It seems to me that the sale of opiates to the debased creatures who have become its slaves is the most disgusting and degrading feature of the drug business, and while I cannot understand how anyone should desire to cater for such trade, I for one am perfectly willing that they should have it. An opium eater is naturally a liar and a thief; you would not dare trust one of them within reach of his or her coveted drug unwatched; their money is hoarded to buy that drug alone; they are outcasts from society; they are beneath the notice of the honest laborer; although themselves possessed of wealth, they are a disgrace to a pharmacy. Sneaks and hypocrites, what have we in common with them? I hear you say, 'but they must have their opium.' Why? Because by the aid of competition, they have been enabled to purchase the drug that has degraded them. Who is responsible for this? Shame upon our profession, it is ourselves, who else sells the degrading drug? Who has reduced the price of morphine from a dollar to forty cents a bottle and opium from seventy-five to twenty-five cents an ounce? Ourselves. Who has reduced the price of laudanum from fifteen to five cents an ounce? Ourselves. Who delivers laudanum unlabeled at request? The pharmacist. Does he do this blindly? No. He knows full well the regular customer, he needs not to ask his wants, the extended bottle taken, filled, delivered without a word, tells only too plainly the miserable pitiful story of a ruined life. For a few paltry dollars reeking with misery and degradation, we have competed as for a prize. It is a disgrace, and a blot upon our escutcheons, placed there by our own hands. We alone are responsible for the enormous sales of chloral, cocaine, opium and its products, and others of their miserable kind, by the pharmacists of the world. We owe it to ourselves to remove the stain, cost what it may. Will we do it?"

The recently proposed potassium permanganate antidote for morphine is coming to be looked upon with increasing suspicion by the medical fraternity, sustaining the position taken by the Era with reference to it. Can it be, as we have seen it hinted, that the discoverer of this wonderful antidote has in contemplation the establishment of a home for the cure of morphine habitues?

NEW CANADIAN TARIFF.

Tariff tinkering seems to be all the rage this year, but our friends of the Dominion of Canada seems to have effected a change on March 27, while we are still talking about ours.

Sulphuric acid has been reduced one-fifth of a cent per lb., and acetic acid, imported for color-making or dyeing, from 20 per cent and 25 per gal. to 25 per cent ad valorem. Acids other than muriatic, nitric, sulphuric, pyridineous and acetic, and employed for medicinal, chemical or manufacturing purposes, are on the free list, and formerly paid 20 per cent. Acid phosphate now pays 2 instead of 3 cents per lb. Essential oils have been reduced from 20 to 10 per cent. Salad oil has been increased from 20 to 30 per cent, but olive oil is free. Vaselin and similar petroleum compounds were formerly charged 4c per lb. in bulk and 6c per lb. in bottles, and are now 35 per cent. Paints, colors, ochres, and oxides have been reduced from 30 to 25 per cent. Varnishes are now 20 per cent and 25c per gal, against 25 per cent and 20c per gal. Spirits of turpentine has dropped from 10 to 5 per cent, and putty from 25

to 15 per cent. Blacking, for shoes or harness, leather dressing and harness soaps are now 25 instead of 30 per cent. Licorice paste formerly paid 2c per lb. and sticks 3c per lb.; both are now included at 20 per cent. Carbolic oil, formerly rated at 10 per cent, is now free, as also tin crystals, which formerly paid 20 per cent. Red and yellow prussiate of potash, charged with 10 per cent, are now on the free list. Saltpeter, previously at 20 per cent; lampblack, at 10 per cent; lead acetate and nitrate and zinc sulphate and other zinc salts, at 5 per cent, have all been put on the free list, as also caustic soda in packages less than the ordinary drums. Crude lime juice is free, as formerly, and if fortified with spirit, also pays the old duty, but unsweetened juice, which was chargeable with 10c per gal., and sweetened with 40c per gal., are now to pay an ad valorem rate of 20 per cent. The duty on spirits and alcoholic compounds has not been changed.

Powdered opium was not previously separately enumerated, and was sometimes imported as a drug, thus paying 20 per cent, or, if brought in as opium, was subject to the charge of 81 per lb. The rate is now fixed at \$1.35 per lb. Beeswax has dropped from 20 to 10 per cent, and paraffin wax has been reduced from 3 to 2 cents per lb. Laundry soap, unperfumed, is now 1c instead of 1½c per lb., and perfumed soaps, with pearline, soap powders, sapolio, silver and pumice soaps, which formerly paid 10 per cent and 10c per lb., now stand at an ad valorem rate of 35 per cent. Glue and mucilage have been reduced from 30 per cent and 3c per lb. to 25 per cent straight. British gum, dextrine and sizing, which paid 1c per lb., are now subject to 10 per cent only.

Surgical Instruments of all kinds have dropped from 20 to 15 per cent. Lamp chimneys are at 25 instead of 30 per cent, and the specific duty of 5 cents per dozen has been taken off glass jars, which, however, still bear, with other glassware, the ad valorem duty of 30 per cent. Plain and decorated earthenware and decorated china and porcelain, formerly paying 35 per cent, are now placed at 30 per cent, and demijohns have been reduced from 3 to 2 cents per gallon capacity.

Printed books—not reprints of British

copyright works, were formerly subject to 15 per cent, and are now to pay 6 per lb. British copyright reprints are chargeable until March, 1886, with an additional 12½ per cent.

THE PATENT OFFICE LIBRARY.

The scientific library of the United States Patent Office at Washington now consists of about 65,000 volumes. As it was designed as a collection for reference in determining the novelty of inventions, it has necessarily grown in the direction of technological publications, including full sets of periodicals devoted to industrial art and treatises on machines, arts, processes and products in the English, French and German languages. Prominent among such works, it contains a series of English patents from their beginning in 1617 to date, comprising upwards of 5,000 volumes of text and plates, a series of French patents numbering about 300 volumes; 800 of German, and complete sets of Victoria, Queensland, Canada, New Zealand, Italy, Switzerland, Sweden, Russia, Austria, Norway, Belgium and Sardinia, each containing less than one hundred volumes, the whole aggregating more than half a million of individual patents. It contains also 1,531 volumes of literature relating to patents, including indexes and abridgments of foreign patents; 1,300 volumes of bibliographical works; 3,000 law books; 500 U. S. publications not of strictly technical character, and about 1,300 volumes of the important English and American reviews. The classes above mentioned, together with encyclopedias of every description, works on pure science, specific and general, and medical works, comprise in round numbers 25,000 volumes; leaving for publications devoted to special arts about 38,000, very nearly equally divided between books and periodicals. The Librarian, in his annual report, from which the above statistics are taken, further says: "Being a government library, of course it has no hope of those bequests and munificent donations which have enriched so many collections. No Librarian of the Department need await with faith and what patience he may command, the good man's end which shall bestow the gift of thousands on his shelves. The government library is supposed to take care of itself; and it does, with difficulties of its own. The boar of the Appropriations Committee doth waste it, and the wild beast of the office doth choke it into dark corners. The arm of the government is over it—with a chastening rod oftentimes."

We are glad to set aside space for Mr. Whitney, of Massachusetts, to enter a rejoinder to the accounts published in our last number of liquor selling by druggists in Westfield, that state. We can hardly admit, however, that we were wrong in our criticism, for, notwithstanding Mr. W.'s explanation, we cannot imagine how it is impossible for any individual to have legitimate use for the quantities of alcoholic beverages which are attributed to some of the residents of Westfield, nor would it seem that Lizzie Borden and Jim Corbett should have the phenomenal thirst attributed to them. The case seems to be Mr. Whitney's statements against those of the Springfield Republican, and "you pays your money and takes your choice."

Written for the Era

PHARMACOLOGY—ITS SCOPE AND THE METHODS OF TEACHING IT.

By J. O. Schlotterbeck, Ph. C., H. B., Instructor in Pharmacology and in Botany, in charge of Materia Medica, University of Michigan, School of Pharmacy.

(Continued from Page 250, March 15.)

It has often been said that costly and beautiful buildings do not in themselves constitute universities or colleges, and the truth of the saying is self-evident. Indeed, if these were true criteria of merit and standing, we could then point with pride to a greater number of excellent educational institutions in this country. The country is annually flooded with pharmacy catalogues, profusely illustrated with cuts of buildings, lecture rooms, and laboratories of various kinds; all of which look well and unquestionably add to the attractiveness of the pamphlet. If we examine the illustrations of some of this literature, we find that many of the appurtenances so essential to thoroughly practical teaching in pharmacy are sadly inadequate and often entirely wanting. For instance; the lecture and recitation rooms may probably have no black boards for class exercises; the chemical laboratories may be insufficient for the continuous work of all students, if they have any at all; and the microscopical laboratory may be furnished with a single table around which all the students are seated, while light, the most important essential to this work, is admitted through one or two small windows in a remote part of the room.

No matter how competent the instructors, one fact remains: thorough and comprehensive instruction in the various studies which constitute a broad course in pharmacy cannot be successfully imparted unless there be ample facilities for the exercise of the students themselves, so that each can by his own work verify the principles enunciated during the lectures. These appurtenances and facilities therefore form an intimate part of the instruction, and as the instruction in pharmacology as given in the University of Michigan forms the subject of this paper, a few words will be devoted to their description.

The laboratory of pharmacology is located in the west room of the museum of the pharmacy building; in several ways an ideal place for the study of crude drugs. Along the sides of the room are spacious, glass wall cases, containing choice collections of crude drugs, distinctly labeled and systematically arranged to admit of easy access and easy reference by the student, for purposes of study and comparison. The method of labeling is plainly seen in Fig. 1, which shows that no labels of any kind are placed within or upon the bottles, but upon the beveled fronts of cherry blocks instead. The pharmacopoeial name, botanical name, and descriptions (when necessary) are all that is placed on the labels. Above the wall cases, and extending to the ceiling are numerous windows admitting a uniformly diffused light, essential to the preservation of such specimens as would be damaged by the sun's rays.

The table was designed for this school without knowledge of any other like it, and admirably serves the double purpose of laboratory practice and the taking of notes during lecture. By noting the position of the students in Fig. 3 it will be

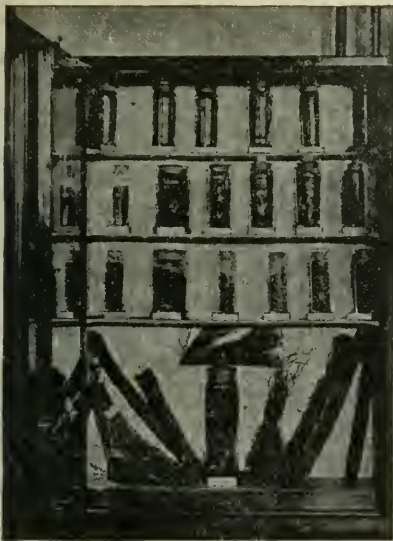


Fig 1.

seen that all students can face the instructor, and that the table is continuous, and assumes the form indicated in the sketch below.

The swinging portion of the table, shown in the lower right hand corner of Fig. 2, permits entrance to the interior, and when closed forms a complete circuit for passing the drugs from one to another. Extending the entire length of the table, and about six inches above it, is a shelf for placing boxes that would otherwise interfere with the passing of the containers.

Now, one of the most important tests applied to drugs for identification is the taste. Some of the drugs, check, while many, if not the majority, increase the secretion of saliva, and it becomes necessary to frequently clear the mouth before testing other specimens. The tables above described contain drawers five feet long, four inches wide and deep, which are cleansed and partially filled with a thick layer of antiseptic sawdust before laboratory work is begun. They are drawn out at the beginning of the hour, and in that position do not interfere with work. They are clean and perfectly odorless, and are a happy substitute for the cuspidore, filthy at best, and liable to overturned.

PROGRAMME OF WORK.

The instruction in pharmacognosy is continuous, and extends over a period of two years of nine months each. The different courses are arranged in their natural sequence. That is to say, those courses are given first which are indispensable for a clear understanding of those which succeed.

During the first semester of the first year the student divides his time between general chemistry, analytical chemistry, theory of pharmacy, and pharmacognosy. This arrangement is all that could be desired. First, general and analytical chemistry supplement each other throughout the entire course. Second, the two conjointly are very beneficial in the study of pharmacy, and all three of them serve to give a clearer conception of the study of that part of pharmacognosy which is under consideration at this time. Third, the pharmacognosy of drug obtained from the mineral kingdom is no small help in general chemistry, and is of decided advantage in qualitative analysis.

The programme of study throughout the college course is as follows:

FIRST YEAR.—FIRST SEMESTER.

Study of dry salts and acids of the pharmacopoeia by recitations and laboratory practice.

From Christmas holidays until the end of the semester, a review of plant morphology.

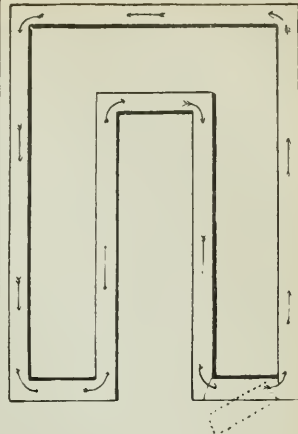


Fig 2.

SECOND SEMESTER.

Plant anatomy, followed by practical work in the identification of drugs, and the detection of substitutions and adulterations by microscopic methods.

Recitations in Flueckiger's Principles of Pharmacognosy and laboratory work conducted at the same time.

SECOND YEAR.—FIRST AND SECOND SEMESTERS.

Laboratory work, together with recitations upon all the pharmacopoeial drugs as given in Malsch's Materia Medica.

Having practically accepted the definition accorded to pharmacognosy by Martius, viz.: that it should include the study



Fig 3.

of drugs and medicines derived from the three kingdoms of nature, these sources might form the basis of a division of study. The number of drugs obtained from the animal kingdom is very small, however, and they are usually considered along with those obtained from the vegetable kingdom. The inorganic compounds usually kept by the pharmacist, would then form the other division.

Deviating somewhat from this manner of treating the subject, the first course comprehends the study of the solid salts and acids of the pharmacopoeia. This includes both inorganic and organic compounds, and they are considered in alphabetical order in class work.

From the outset to the close of the college course, the development of independence of thought and work among the students is an aim never lost sight of. After all, one of the prime reasons (and by some considered the most important one) for attending college is to learn how to use books, how to study, and therefore how to pursue work after leaving college. Unfortunately, there are some schools that are comparable to the quiz-compend; their main aim being to give as many facts as possible, while they neglect teaching how to connect and utilize them; they tax the brain without exercising it; they are actually injurious to the pharmacist and the profession rather than beneficial.

There are no suitable text-books that could be employed in this work, for they are either too concise or too diffuse, both grave defects. Much has been said for and against the lecture system of instruction, with the majority favoring its abolition under certain conditions. Without the use of text-books lectures should be virtually dictated in order to produce the most satisfactory results. This requires too much time, and the frequent and unavoidable interruptions interfere with the continuity of thought. The student who listens attentively and then goes home and writes up his notes, receives more benefit from a lecture than he who divides his attention between listening and writing down at once, what he has heard. In that part of pharmacognosy under consideration, a happy medium has been sought. A mimeograph copy of a digest of the lecture is handed to each student, who follows the instructor as he logically comments and dilates upon the statements there briefly noted down. The first fifteen or twenty minutes of each lecture hour are devoted to a quiz upon the previous lecture.

PRACTICAL WORK.

A sufficient number of typical specimens is placed upon the table, so that a section of forty to fifty students will have at a given time at least two different specimens before them. The tests to be applied are the color, structure (crystalline or amorphous), odor, taste, density, approximate specific gravity, stability in atmosphere and so on. For some time all jars were labeled with pharmacopoeial and common names, and by applying the above named tests and keeping them constantly before the eyes of the student, they would soon acquire perfect familiarity with the substances. But it was soon found that any peculiarities, as, for instance, an air bubble or a nick in the glass, or the quantity of material in the jar, were unconsciously depended upon for identification of the specimen, be the students ever so conscientious. The absence of independence would show itself



Fig. 4.

when entirely different specimens were submitted for identification. To do away with this difficulty all drugs are placed in jars bearing no mark whatever, and each student is compelled to determine the identity of the specimen by means of a key which was devised as an aid to the study. This key will be published at some future time. It is not intended as a substitute for, but merely as an aid to the analysis of certain drugs, and it also forms an excellent means for self-examination upon the subject.

Tasting of the Drug.—It might be presumed that there is nothing particularly difficult about tasting a substance, and that therefore, no special instructions need be given in that direction. There is, however, opportunity for scientific training of the sense of taste in the identification of drugs. Invariably in State Board examinations the candidates are compelled to transfer sufficient material to the tongue by means of the fingers, and this is also true in colleges where this kind of practice work is required. There is not only contamination upon the fingers and in the specimens, but it is highly repulsive to be obliged to taste of a substance that has been fingered and tasted by numerous other persons. In most cases a minute quantity is amply sufficient to give the distinctive taste is not so active physiologically, and by degrees develops a delicate sense of taste. With this end in view, there is distributed every morning a liberal supply of wooden toothpicks, the very points of which are used for taking up small portions of the substances. The use of fingers is absolutely forbidden, and when crystals or large masses are met, the knife must be employed to remove a small portion of the substance.

Quizzes.—Quizzes are frequently given; every day if possible. Students are called to individual tables, as shown in Fig. 4, upon which are placed numerous two-ounce, screw-cap jelly jars, containing samples obtained from various sources and without distinguishing mark of any kind. In order to overcome the tendency to judge from familiarization with general aspects, rather than from intrinsic features, duplicates of salts and acids

differing in appearance are submitted. Thus, potassium iodide and bromide crystals, both large and small, opaque and translucent, may perhaps be upon the same table. Some freshly crystallized samples of sodium sulphate, zinc sulphate, magnesium sulphate, together with those that have effloresced, potassium carbonate and potassium acetate, both dry and deliquescent; small and large crystals of potassium nitrate; lump and powdered ammonium chloride may also be upon the same table. As fast as the samples are identified, they are placed on strips of paper three inches wide and eighteen inches long, and the pharmacopoeial names written under them.

Examinations.—Test examinations are held at stated times during the semester. The final examination is conducted like those given by the Michigan Board of Pharmacy. An entirely different set of four ounce, glass-stoppered bottles is arranged in groups of four upon the table. Each candidate is abundantly supplied with wooden toothpicks and fresh water with which to rinse the mouth. All begin work at the same moment, and past experience has shown that five minutes is ample time for identifying four specimens and writing down their pharmacopoeial names. At the end of the five minutes all move one place farther, and so on until all have finished. Seventy-five per cent of all the samples must be recognized in order to pass, and since this method has been adopted, not over two or three per cent have failed upon first examination. The final test upon the lecture work is an oral one, and covers the whole subject.

Having successfully completed the work the class now turn their attention to plant morphology. This is review work for the majority and is merely given to form a good foundation for the study of plant anatomy which follows it. Wherever possible, medicinal plants are used for illustration, and especially those commonly known. A large herbarium, charts, and black-board drawing serve for illustrating the text.

(To be continued.)

HOW CHEMISTRY IS BEST TAUGHT.*

By Charles F. Mabery, Case School of Science, Cleveland, Ohio.

The subject "How chemistry is best taught," has a serious interest for all persons who are engaged in teaching chemistry, and it is of especial importance to those who have in charge the preparation of young men for professional employment. In view of the prominence of scientific subjects and methods in the present system of education, it is incumbent upon the adherents of these methods to demonstrate by their results that they are not in error in assuming that science should have an equivalent place with other departments of knowledge. In the higher institutions this question has received a definite answer; in the secondary schools much has yet to be accomplished in the direction of general education as well as in the preparation for higher study.

That the importance of a knowledge of elementary chemistry is apparent to all who are capable of appreciating its usefulness, is evident in the recent extension

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of instruction in the secondary schools. In the larger portion of our high schools, however, physical science still occupies a subordinate place, or it is taught merely from text books, with little, if any, laboratory training. Probably the chief hindrance to any radical change is a lack of appreciation on the part of the public. Doubtless the many popular movements of the present day will exert a beneficial influence in extending an acquaintance with the application of scientific principles. I am convinced that the efficiency of higher instruction in chemistry will be greatly improved when students coming to us from the secondary schools shall have had the advantage of practical training in elementary physical science, and I believe this will be the sooner accomplished through a recognition of its benefits in the affairs of every-day life.

I think that we shall all agree that the best argument to be urged for chemistry in any grade of instruction is the value of experimental methods for the development of mental power. This feature should naturally appear with especial prominence in courses leading to the degree of Bachelor of Arts; and, if the schools of science are to be maintained on a higher plane than the trade schools or shops, the courses of study must be conducted with reference to the attainment of mental discipline and scholarship. In the courses of chemistry I am unable to see why this should interfere with the acquisition of practical knowledge.

The guiding star to successful teaching in chemistry is the personality and enthusiasm of the instructor. With the great increase in attendance in many institutions, the earlier relations between student and instructor, which were frequently mingled with deep personal feeling, somewhat akin to veneration on the part of a student, are well nigh impossible. Nevertheless, an enthusiastic teacher with tact and good judgment has little difficulty in maintaining a profound interest even in large classes. In successful teaching we all know how much depends upon the attitude of the instructor toward his students. Courteous relations, with clear understanding that teacher and students are mutually interested in the acquisition of knowledge, readily secure the confidence and esteem of a body of students, and the instruction need seldom be interrupted by questions of conduct. A faithful teacher does not limit his attention to the brighter minds; students slow in comprehension but earnest in application secure a store of information which will be used later to the best advantage. It was a wise teacher who said: "I am faithful in my duty to dull students; in my old age I may need favors of the men of wealth."

In assimilating their methods from European laboratories, the chemists of the United States, untrammelled by traditions and unrestrained by the influence of any particular school, have been in favorable conditions to appreciate the labors of the great masters of other countries. Unfortunately, it may be, in the wonderful development of our natural resources, the temptation to enjoy material benefits may have retarded the growth of original investigation; yet, looking toward the future, the erection of so many large laboratories cannot fail, under judicious control, to contribute to the advance-

ment of knowledge. A marked individuality in our methods is apparent even in a casual inspection of American laboratories. Variation in details is a natural consequence of difference in the temperament of different peoples; and teachers educated abroad have perceived the necessity of adapting the methods in which they were trained to the peculiar conditions.

With some hesitation I approach that aspect of our subject which relates to the details of methods, since the best success in teaching is so dependent on the personality of the instructor that it would seem presumptuous to suggest a rigid scheme for all. There are certain principles at the foundation of successful teaching, however, which may be properly presented for consideration, especially since this paper is intended as an introduction to general discussion. I have already alluded to an unsatisfactory condition in the methods employed in the secondary schools. In some of the high schools, as we all know, there are teachers who are thoroughly imbued with the spirit of scientific study, yet competent teachers are often limited in their efforts by a heavy burden of other work, or by a need of the necessary appliances. There can be no question that the high school courses would be benefited if every pupil received systematic training in elementary physical science, and I believe it is consistent with due attention to other subjects, and that it can be accomplished without any unreasonable pecuniary burden. As an expeditious and effective method for teaching chemistry in the high school, I would have the teacher meet the class before the lecture table and demonstrate, experiment and explain, simply as a convenient mode of teaching classes as one pupil should be taught. The experiments should be repeated by the pupil in the laboratory, under the immediate oversight of the teacher, with the note book close at hand. A text book is necessary, to give information which the teacher has not time to include; but no text book can supply the need of personal teaching. Occasionally teachers with limited knowledge are led to adopt methods of questionable utility by the arrangement of certain text books. Some years since a teacher in one of the high schools in the east, in which little attention was given to laboratory work for students, remarked that his pupils must have a thorough knowledge of valence and structure symbols. The topical arrangement of the subject may be left to the discretion of the teacher, and the quantity to the length of time available; but it should never be forgotten that the educational value of such instruction depends upon the skill in manipulation, of correct habits of observation and in recording notes, and of the true spirit of scientific thought. Whatever of practical information may be included will enhance the utility of the instruction.

In the higher institutions, the first course is general and descriptive chemistry, of which every person who expects to engage in any scientific pursuit should have a thorough knowledge; and, as has been suggested, this subject should have a suitable place in college courses. Concerning details of the most efficient methods in teaching general chemistry, no doubt an extended course of experimental lectures, closely connected with laboratory practice, affords the best training.

The ground can be fairly covered in seventy or eighty lectures, with four to six hours a week of laboratory work, so arranged that the lectures of each week shall include the experiments for the laboratory. Weekly recitations on the subjects of the lectures and laboratory work enable the instructor to control the progress of his students. When students first enter the laboratory it is essential that they be impressed with the necessity of accuracy in the details of experimental work. This important lesson may be easily taught by means of experiments capable of affording quantitative results; by some instructors such experiments are occasionally introduced throughout the course, with the same object in view. There should be sufficient instruction in the laboratory for careful oversight of the experimental work and the note book of each student. Moreover, I am convinced that it is unwise, in any grade of undergraduate study in chemistry, to allow students in laboratories without constant supervision; when left to themselves they are apt to loiter, to contract careless habits and to waste material. Then a laboratory is held responsible for accidents, even though they occur through inexcusable carelessness of students. Every instructor in charge of a laboratory will, no doubt, recall heedless moments on the part of students. Some years ago, just as I entered my qualitative laboratory one day when the assistant was out of the room, I observed a student inflate his lungs twice from a bottle containing a freshly charged solution of hydric sulphide; he immediately fell into the arms of a companion and it was some time before he recovered. Probably another inflation would have proved fatal. This fellow was a sophomore, having taken one year in general and descriptive chemistry; he was fairly bright and had been using the reagent during several months. But some question arose as to the odor of the unadulterated gas, and, forgetting the precepts of his freshman year, he attempted by a direct experiment to ascertain the truth.

What has been said concerning the personality of the instructor applies, perhaps, in a more restricted sense to the student. While methodical habits are to be strenuously insisted upon, the methods may be sufficiently flexible to allow the student to reach his conclusions in his own peculiar way; the particular form of the lecture and laboratory notes, for example, can be left to the preference of the student, provided they are well written and complete.

For other students than those who desire special training in chemistry or allied subjects, an extended course in general and descriptive chemistry provides ample knowledge of this subject. Analytical chemistry is next in the sequence of studies, and for evident reasons qualitative analysis is first undertaken. On account of its great disciplinary value I regard this subject as one of the most important in the whole course of chemical training. It enables the instructor constantly to test the faithfulness and proficiency of the student, and beside the mental discipline, the student acquires a comprehensive knowledge of methods of separation and identification, which is the foundation of quantitative analysis. Elementary theoretical chemistry, of chemical philosophy, may be

conveniently and profitably taught at the same time with qualitative analysis, especially since a familiarity with stoichiometry and chemical reactions is essential in a good understanding of quantitative methods.

Thus far, in teaching chemistry, probably the methods are not materially different in the college and the technical school. Indeed, in the more advanced subjects, the principal difference is in the attention which should be given to the acquisition of practical knowledge in the technical courses. The methods of quantitative analysis are well adapted for the development of skill and dexterity in accurate manipulation, and to the chemist they are indispensable. As a preparation for professional employment the training in methods should be sufficiently comprehensive and thorough to enable the student to appreciate the conditions of any analytical problem; and, further, I deem it of much importance that students have practice, under guidance, in all typical standard methods. It is not sufficient that men are carefully trained in methods which impart skill and accuracy; it seems more desirable, for example, that men who enter the iron and steel industry are thoroughly familiar with the standard methods of iron analysis than to rely upon skill and general knowledge to acquire the special features in actual practice. The first lessons to be learned in the quantitative laboratory are accuracy and confidence; the importance of a close economy of time and effort must be appreciated, and an intelligent student will soon perceive the numerous ways for conducting analytical operations rapidly without haste. When a chemist assumes the duties of a position, every moment has a pecuniary value, and results are demanded in the smallest limit of time. This requirement is sometimes urged in favor of the undergraduate training in rapid methods. While some practice in this direction would, without doubt, be serviceable; but in the three terms at most which can be devoted to quantitative analysis, the time is fully occupied in gaining a familiarity with methods, and in passing from one analysis to another, the conditions are not favorable for commercial rapidity. As in actual practice, it is only possible to attain to the highest degree of celerity and accuracy when the attention of the analyst is limited to a moderate number of determinations which are continually repeated. Experience shows that well-trained students are not long in acquiring commercial dexterity, even to reporting the percentage of carbon in five minutes after a ladle of steel is poured into the mold, or a complete analysis of blast furnace slag within thirty minutes. If attempts were made to give such practice to students, there would still be much to learn in the different conditions in the laboratory of the manufacturing plant.

A branch of our subject which has doubtless occasioned some of us much perplexity in our endeavors to give it a place in an under-graduate course, is organic chemistry. Our difficulty is partly due to the feeling on the part of certain students when they have gained a good acquaintance with quantitative analysis, with the consciousness that they can secure some pecuniary return from their attainments, that they have learned all of chemistry that can be of service to them. Usually such students may be made sen-

sible of their error, although, unfortunately, the importance of a broader view is not always appreciated until a knowledge of this subject is needed in commercial occupation. That organic chemistry is a difficult subject students are not long in perceiving. It is not sufficient in a course of lectures that the principles and methods are understood, they must be learned. The importance of a broad and thorough training in theoretical and descriptive organic chemistry as a part of a chemical education is beyond question. As a part of the preparation for technological and applied chemistry, organic chemistry can most conveniently be placed in the third year; yet without some introduction I have found this subject too difficult for third-year students. The plan which I have adopted with satisfactory results includes recitations in the first term of the third year from an elementary text book, with the following lectures extending throughout the second term and the first term of the fourth year. So far as possible laboratory work should accompany the lectures, although from the pressure of other work the greater portion of the experimental work may be pushed forward into the fourth year. In connection with the lectures students should be required to extend their knowledge by reading, and recitations are necessary to insure faithful application. With this arrangement the principal laboratory work of the fourth year includes organic chemistry and chemical technology, assaying, gas analysis, and such other subjects as may seem expedient can be provided for here. Lectures in metallurgy are of advantage to students in chemistry, and they may be attended during this year; some additional instruction in theoretical chemistry can be given with profit.

For the utilization of chemical skill the field of manufacturing or applied chemistry is full of promise, although in this country it has largely to be developed. Suitable preparation for industrial occupation demands thorough training in the direction already suggested, and beside, a good knowledge of technical processes with the aid of laboratory work, so far as it is feasible to experiment with these processes on a laboratory scale. Concerning the best methods for teaching this subject, no doubt courses of lectures, supplemented by reading are to be preferred, especially if part of the lectures can be given by persons engaged in professional pursuits. Several recent compilations, in a convenient form for the use of students, are a valuable aid.

The range of laboratory work is, of necessity, somewhat limited; it must consist principally in the preparation of chemical products from crude materials, in the study of mordants, and dyes, and in testing the efficiency of certain features of industrial processes on a laboratory scale. The preparation of these or written accounts of various processes should also form a prominent feature of a course in technological chemistry. Institutions fortunately situated near manufacturing establishments, afford valuable opportunities to students who are enabled to study industrial methods in actual operation. Such instruction, supplemented by laboratory practice, constitutes the best possible method of education in applied chemistry that an institution can provide.

Any discussion of the details of a chemical education must be incomplete with-

out some reference to related subjects, either such as are closely allied to chemistry, or those which are essential in the proper mental development of every well-educated person. Evidently this portion of our subject may be considered from more than one point of view. In a course of four years in the school of science, there should be a thorough training in mathematics, so far as calculus, and it may be no disadvantage to make a certain portion of this subject required or optional. Every chemist who aspires to a position beyond that of an analyst will be called upon to plan and oversee the construction of appliances and buildings. In fact, ingenuity and mechanical skill may occasionally be as serviceable as chemical knowledge. There are, therefore, good reasons for the requirement by every student, of a good understanding of mechanical drawing and of elementary mechanics, and this may have led to the foundation, in several institutions, of a course in chemical engineering. No doubt this course is in demand by persons who desire proficiency in the engineering features, but students who expect to engage in applied chemistry can hardly afford to omit any portion of the undergraduate training in chemistry. Nothing need be said as to the importance to all chemists of a thorough discipline in descriptive physics with laboratory practice. A familiarity with the principles of heat and electricity and with the manipulation of electrical currents are among the more important requisites. The rapid growth of electro-metallurgy indicates large possibilities for the application of electrical energy in this form, and it can evidently best be undertaken by the chemist who possesses a good knowledge of electricity. The literary training in scientific courses is usually limited to the English branches and the modern languages; without a certain acquaintance with the latter the chemist would be seriously restricted in the sources of his information, and, moreover, to scientific students, it would seem that the French and German languages should be taught as much, at least, for mental discipline and for culture as for their practical usefulness. Of the importance of thorough discipline in the English language and literature, history, logic and political economy, it is not necessary to speak. Determinative mineralogy may be provided for in the second or third year. Courses in agricultural or pharmaceutical chemistry, or in other special fields, should differ in the details of the third and fourth years from the course outlined above.

In college and university courses, theoretical chemistry and chemical literature receive more attention, and in general less attention is given to practical applications. I do not accept the idea sometimes expressed, that original investigation should not be attempted outside of the university. We are all too well aware of the difficulties in the way of carrying on special study in connection with the responsibility of undergraduate courses; and yet I am sure we appreciate the influence of such work in the atmosphere of the laboratory as well as upon the instructor himself. Then there are always in the laboratory bright students who are able to undertake with profit the study of special problems. As a part of the preparation for teaching I look upon a certain acquaintance with the methods of original research as an essential attain-

ment; I do not intend to assert that without it there can be no good teachers, but it certainly strengthens the equipment of a teacher who aspires to a high position.

Earlier in the paper I endeavored to give an outline of what seem to be the principal objects to be kept in view in teaching chemistry as an educational subject. Students continue in chemistry with the intention of securing professional employment either in teaching or in applied chemistry. How often are we met with the question as to what is the prospect of employment after graduation; whether the inducements are more promising in teaching or in practical fields. Concerning teaching as a profession, the reply is easy; a person with an aptitude for teaching and with a broad training has little difficulty in securing a position commensurate with his attainments, especially at present, with the wonderful extension of our educational institutions. But the number of positions is limited and there are few vacancies; if they were abundant not all persons, even with the best possible preparation, would succeed in teaching chemistry. In applied chemistry the conditions are not the same.

With our enormous stores of natural products yet undeveloped, vigorous enterprise in business operations and great industrial wealth, there cannot fail to be rapid development in the fields of manufacturing chemistry. Within the ten years just elapsed, we have witnessed great changes; manufacturers, who, ten years ago, conducted their operations almost without the aid of chemical skill, now employ several chemists. Eight years ago I visited a large plant for the manufacture of sulphuric acid, which contained neither a Glover nor a Gay Lussac tower. Further improvements, which are necessary for the production at home of chemical products that are now imported in large quantities, require broad qualifications with extended experience; if our graduates are not sufficiently well trained, chemists will be secured elsewhere.

If there are portions of the educational field in chemistry which appeal to us with greater force than others, perhaps the elementary teaching in the secondary schools and the advanced study in preparation for teaching or for positions requiring independent skill and originality in methods are worthy of attention. The recent growth of knowledge within special fields has introduced new features into methods of instruction. In addition to courses which are adapted to all students, those who intend to undertake investigations in any particular direction should have training under the guidance of a specialist in that field. There are many economic problems of the utmost importance awaiting solution, which require not only the application of all accumulated knowledge, but the discovery of new methods. The maintenance of a healthful water supply and the economic disposal of sewage are serious problems for the present generation, and the engineer must be aided by the best skill of the chemist and of the bacteriologist.

Every laborer is directly interested in the promotion of investigations on an economic and healthful food supply. To the great army of workmen who are struggling to support families on incomes of three or four hundred dollars a year it is a matter of serious importance to secure the best nutrition at the smallest

cost. Yet it is rarely, if ever, that a judicious selection of food materials receives attention; it is usually a question of individual taste, so far as the means at hand will permit, with a complete ignorance of any principles of economy or health. In these directions and others of no less importance there are great opportunities in the domain of sanitary chemistry to render inestimable benefits to humanity.

What has been said of sanitary chemistry applies with equal force to medical chemistry, to agricultural chemistry and to other special fields. But I feel sure that the details of methods of instruction, as well as a consideration of methods based on other recent discoveries, such as the use of models in teaching structural chemistry, can best form a part of the general discussion by teachers who are especially occupied in those particular fields. Perhaps, also, the great border land between chemistry and physics, or chemical physics, should receive attention from those whose investigations are extending our conception of the fundamental principles of chemistry.

[Written for the Era.]

AMATEUR PRESCRIBERS AND DRUG PEDDLERS.

By S. P. Whitmarsh.

In searching for the causes that in these latter days are gradually lessening the legitimate profits of druggists, one needs to look beyond cut-rate stores, physicians' supply houses, grocers' competition and the like antagonistic agencies. They are the open and avowed competitors of the regularly registered druggist, and have been cursed and discussed both singly and collectively, from every point of view, by members of the profession. Concerning the injury they are doing and the plans likely to prevent it, nothing more can be said. Under our peculiar type of civilization all conditions of business or professional life are subject to changes quite difficult to understand, and alike impossible to resist. In the struggle of the fittest to survive, however, it is the hidden elements that often exert the most powerful influence for good or evil on each class of humanity struggling to reach a higher stage of development.

There was a time in the history of pharmacy when, although the ranks of the profession were not recruited by a forced hot-bed growth in special schools as at present, the wants of the community were no doubt quite as well supplied, and by men fully as well prepared to meet all the requirements of their calling. They had some standing then in the public estimation, as those who knew at least a part of the dark secrets of nature's laboratory, and whose opinions and advice on matters collateral to their profession were eagerly sought and confidently relied upon. But the intellectual developments of the last half century have changed their relative position with the public. By degrees that public has been growing somewhat acquainted with the secrets both of commercial and professional life; and, as usual, this has verified the old adage that "a little knowledge is a dangerous thing." Not necessarily dangerous in this case to those who only half know, but because of half knowing what they choose to believe of the estimated profits of druggists, they assume to charge them with extortion in prices.

This feeling has grown up from little

jabes and sarcastic flings at the immense percentage of profit supposed to be made on some special prescriptions, as though, whatever it might be, that was a rule by which to compute the average receipts. But jokes sometimes lead to practical earnest if persisted in too frequently. Still, joking of itself need not disturb one's equanimity, were it not connected with other considerations that furnish a natural sequel. The price lists of all commercial men were once considered almost as much a guild secret as the record of personal expenses is to the individual. But the boasted freedom of an independent press reaches now to the remotest detail of business as well as family affairs. To-day nothing is unknown to anyone who reads the papers and allows his curiosity full play. People know more about what wholesale prices are nowadays than the merchant himself did fifty years ago, under the peculiar system of finance then existing. They know just enough to make rash estimates leading to false conclusions about those whose actual circumstances they can never understand. In a desire for retrenchment they study prices hastily, and compare them without judgment, thus giving verdicts that are in the main both partial and unjust.

One of the new fangled economies of a not remote period is treated of in a book entitled "Every Man His Own Lawyer." Apropos to this our forefathers had a pithy saying that "he had a fool for his client." At the same time the country has been flooded with other works which furnished information enabling every man to be his own physician. When the public mind had become fully saturated with these economical methods, it was further supplied with an infinite variety of receipt books that claimed to include all knowledge under the sun, but, principally, formulas that instruct how to compound family remedies at the least cost; and thus it became possible to compile another valuable and crowning work called "Every Man His Own Druggist." Now, when a man can save attorney fees by carefully studying the first volume, and qualifies himself to diagnose the most of his own and family's ailments by means of the second, he is prepared to compound, at the minimum of cost, the necessary remedies by following the plainly printed recipes contained in the third.

Very few, perhaps, themselves choose to compound and administer any but such simples as can be easily thrown together. But in cases of sickness which they intend to treat by the book they sneak past the doctor's residence and tender to the bewildered druggist a copy of some favorite formula scrawled in pencil on a waste fragment, that, if readable in spite of bad orthography, violates all the rules of logic by making the less contain the greater, or the law of therapeutics by having no relation to the disease, or the law of pharmacology by attempting to join incompatibles. Besides these puzzling features there is nothing on its face to show whether the drug called for is a liquid, whether it is solution, elixir, or extract. One might follow instructions if the written document could make it clear whether bark, root, leaf or berry of the drug was intended, and, if so, how much of each. The impatient customer wonders why a skilled pharmacist, who is able to read the Latlized hieroglyphics of a regular physician, does not easily compre-

hard plain English. While he watches the druggist's uncertain movements, he kills time by computing with the aid of his wholesale price list what the prescription ought to cost, so as to be able to contend for his rights in case the knight of pestle and mortar should attempt the uncertain compound and charge in addition according to the brain labor involved.

The compiler of these formulas that so often puzzle the most skillful druggist may or may not be regularly educated in medicine or pharmacy. Though sometimes he may write "Dr." before his name, he evidently shows a bitter dislike to the medical profession, as well as druggists, and never spares a fling whenever opportunity occurs. At all events he glories in being independent of everything that would connect him with the scientific thoughts of the age, as based on practical research or crucial experiment. Instead, he claims to have cut loose from what he calls the bigotry of the schools and substitutes the "go as you please" style both in diagnosis and dispensing. In fact it is hard to tell where the former ends and the latter begins. But both are distinguished from that of the schools by lacking clearness of statement as to symptoms and definiteness as to quantity and quality of remedies. Quite a large proportion of the formulas considered especially valuable are acknowledged to have been procured by underhanded means from regular pharmacists and reclothed in different language—as a horse-thief often shaves mane and tail of his living plunder to escape detection. And, indeed, as printed such recipes are so well disguised by crudeness of expression that the original owner could never identify them. The signs and abbreviations used in legitimate pharmacy are carefully avoided, probably for a similar reason.

The editions thus prepared constitute the entire education of a certain class who graduate by sheer force of gravity from this their only medical and pharmaceutical alma mater. A part, having sufficient capital, enter into business as jobbers of specialties, distributing wares up like patents, but having no retail price affixed to label, only to grocers and general dealers. Another class become retail drug peddlers and visit every rural district, lavishing the information and remedies so cheaply and easily obtained on all who can be persuaded to take the word of a stranger at its face value, and pay for drugs twice what is usually asked for honest goods at regular stores. While the varieties carried consist mainly of essences, extracts, liniments, ointments, etc., the strength and purity of which vary according to the avarice of the seller, they are supposed to cover the whole catalogue of human ailments and be more effective than the largely advertised medicines prepared by scientific chemists. Many of the maladies that they claim to cure, as expressed in the language of these canvassing druggists, have not yet been recorded in any medical treatise. An occasional use of a compound dislocation of an English word, interjected while volubly discoursing on the merits of some special remedy, has more subduing influence on certain rural patrons than twice the amount of orthodox Latinized diagnosis; and generally affects the hearer to such an extent as to seldom fall in securing a sale of the medicine prescribed.

Next appears upon the scene another

class of drug peddlers that combine the advantages of organization with a free hand, free concert or dramatic entertainment, free medical advice, etc.—in fact everything free but the medicine and the customer, both of which are very much sold. These are no one-night stands either. In tent or hall, the public flock night after night to be amused by the antics of aborigines in war paint and feathers or bums from some broken down variety show. At the close of each performance a medical lecture is given in auctioneer style by a big, long-haired Indian dressed in store clothes, who claims to know more of the secrets of healing than his white brother, and who invites all unbelievers to make an investment in his valuable compound. The game, halt and blind respond freely. While the lecture is kept up the virtues of such medicines seem to be miraculous, but in the words of an ancient ditty:

"When the play was ended,

They down the stage did fling;

And there was no difference in this thing:
Betwixt the hegar and the king."

When the last vehicle bearing the troupe to pasture new is lost to sight by the roundness of the earth's surface, it is evident that the virtue of their medicines has departed; and every victim of emotional insanity comes to his senses with an aching void in his exchequer.

Like machinery without a balance wheel, their medicines have no force inherent to overcome the inertia of doubt; and so require the continuous pressure of solicitation to insure sales. Working more on the imagination than bodily infirmities, when the adjuncts of stage excitement are wanting, the faith of each patient falls fluttering to the ground. Methods like those described have lessened and are still lessening public confidence in all honest remedies kept by regular druggists, and prepared from written personal examination made by skilled physicians of each case. I have no doubt the grievances the latter claim to have suffered from the drug trade have been indirectly caused by the too willing efforts of druggists to handle such remedies as have no merit but a demand made by advertising.

How long this condition of things is going to last no one can reasonably conjecture. In the very nature of human experience there must come a reaction. This the alert pharmacist should strive to anticipate and encourage so far as his personal influence can go by refusing to deal in goods known to be compounded by ignorant pretenders. By never-failing courteous treatment of the medical fraternity he will gradually overcome all reasonable complaints they may make of his having trespassed on their professional limits. Physicians and druggists have many interests in common. Neither can afford to allow jealousies to weaken the entente cordiale without which both lose their influence with the public and a large share of legitimate profits.

SALOCOLL.—Phenocoll Salicylate. The salicylate of this well-known remedy, phenocoll, which has been employed chiefly as hydrochloride. The after effects produced by the soluble salts of this base are absent in this, probably because of its insolubility; mild and reliable antipyretic, anti-neuralgic. In doses of 1 to 2 gms. several times daily. Specific in influenza.

PHARMACY.

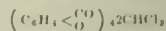
BAY LUM.—Mix 2 drams oil of bay, 20 minims oil of pimenta, 2 drams carbonate of magnesia and 2 pints each of alcohol and distilled water. Filter.

DANGEROUS "DIABETIC" FLOURS.—containing as high as 66 per cent of starch, and yielding the same amount of glucose as wheaten flour, are to be found in the market.

A **DIPHTHERIA CURE** has been discovered by a Milan chemist named Barcolomeo, so he claims, and he wants the Paris Academy 50,000 francs prize for doing it.

LEAD POISONING may be prevented to a great extent by those who handle white lead, by washing frequently in a decoction of oak bark, and by taking care to rinse out the mouth before eating. Milk should be drunk frequently, but intoxicants should be left alone.

CHLOROFORM.—Anschuetz proposed the preparation of a pure chloroform, based on the fact that it combines with salicylic (dehydration of salicylic acid) forming an insoluble crystal compound:



with 33 per cent of chloroform; stable when kept in closed vessels; on warming, chloroform is liberated.

ALUMINUM FOR SURGICAL INSTRUMENTS is not meeting with quite the success predicted, for those who have used such instruments claim that, though they do not oxidize, they are deficient in elasticity and stay bent after pressure. One physician objects to their lightness on the ground that he is made to feel that he can put no trust in them when in use, as he likes to feel that he has hold of something when using an instrument.

THE PURIFICATION OF SEWAGE at Havre, France, by electrolyzed sea-water, recently described in these columns, is now reported to be so successful that when the refuse is drained into the street gutters, not only is there complete absence of all disagreeable odor, but the gutters, which formerly were black and stoned, have been beautifully bleached, even the curbs and flagstones becoming nearly white.

THE GRUB AND ITS GRUB.—B. S. Proctor writes to Chem. & Drug, that he has found a cream-colored grub living in sugar of lead, and he expresses some curiosity to know what the grub lives on. The writer describes it as measuring about half an inch in length by a little more than one-sixteenth of an inch in diameter, and its head suggestive of shellac, its body of cold cream, and its legs like so many Whigs and Tories going off in pairs for a lazy time, when its tail drags on like the end of the session.

SOLID EXTRACTS which are habitually ordered in connection with ointments are best kept on hand in the form of glycerites. They are fitly prepared by bringing together equal weights of extract, glycerin and water, and after effecting thorough mergence, evaporating the water by heating the mixture on a water bath until its weight equals that of the extract and glycerine combined. They are also especially useful in the formation of pills. As the strength is reduced one-half, double the quantity prescribed must be used.—Beginnings in Pharmacy.

HAIR TONIC.—A contributor to one of our medical exchanges plus his faith to the following as an infallible preparation to arrest the falling out of the hair: $\frac{1}{2}$ drams each of tincture of cantharides and tincture of nux vomica, 10 drams tincture of cinchona, 1 to 2 ounces of glycerine, with enough alcohol to make 1 pint, using a little essence of heliotrope to flavor. This preparation is to be applied to the scalp by vigorous rubbing once a day.

PHENOL SODIQUÉ.—G. M. Beringer says that the following formula will give a preparation very similar to the proprietary article: 120 grains of caustic soda are dissolved in 4 ounces of warm water, 2 troy ounces coal tar added, and the whole vigorously shaken for a few minutes. Then enough more water to make 19 fluid ounces is added, the mixture set aside, covered, in a warm place and shaken vigorously during a few days, then decanted and filtered.

EAU DE BOTOT.—A somewhat interesting trade mark question, says Chem. & Drug., is likely to arise concerning the use of the words "Eau de Botot." For a long time past any pharmacist or manufacturer has considered himself entitled to adopt the name for a dentifrice, of which the ingredients are well known, and it had apparently become public property. The preparation was invented more than a century ago, and it is only now that the company trading under the name of Botot claims for itself the exclusive right to the appellation.

AROMATIC WATERS.—M. A. Miner objects, in the Apothecary, to the directions given by the new pharmacopœia for making aromatic waters. He likes the process, but thinks it necessary to increase the quantity of precipitated calcium phosphate employed. Instead of only 4 grams to each 2 c. c. of volatile oil, there is needed about 20 grams. When the smaller amount is used, trituration with the oil produces a pasty mass which is not satisfactorily acted upon by the water. Enough of the phosphate should be used to form with the oil a mobile powder, which mixes easily with the water, without separation of oily particles, and produces a satisfactory product. The mixture should be shaken frequently and thoroughly before filtration.

GOOD SODA WATER.—For a goodly share of his success in the soda water line, D. S. Carraway tells Merck's Market Report he is indebted to the following points: For filling his fountains he uses pure, cold, distilled water from the ice factory, and charges them while the temperature of the water is still below 40° F. In each 10-gallon fountain he puts $\frac{1}{2}$ ounces each of sodium bicarbonate and alcohol, which give a beautiful effervescence and body to the water when drawn. These fountains are then carefully charged to a pressure of 160. The advantage of using the cold water is that it absorbs many times its volume of carbon dioxide, and the beverage when drawn is delightfully light, airy and pungent.

METALLIC PAINT.—Aluminum, when reduced to powder and mixed with a solution in water of gum-lac, gives a metallic paint which covers well and may be shaded with aniline colors dissolved in water. The solution of gum-lac is made by bringing to boiling point a mixture of gum-lac

and borax and an alkali, such as soda or ammonia. The solution must contain at least from 15 to 20 per cent of gum-lac. Aniline colors are added to produce the shade desired, and aluminum is added in sufficient quantity to produce a paint sufficiently fluid for application with a brush. The color is brilliant, very durable and impermeable, and may be applied to metals, paper, wood and woven materials. It may be rendered supple by the addition of a small quantity of glycerine.

THE PHARMACISTS' CODE OF ETHICS.—E. H. Gane read an interesting paper before the January meeting of the Chemists' Assistants' Association of London, entitled "A Suggested Ethical Code for Pharmacists." After dwelling at length upon a voluntary code, he presented a compulsory code which is summarized thus: A pharmacist guilty of any of the following acts and violations is to have his name erased from the register of chemists and to be stigmatized as guilty of disgraceful conduct. 1. Wilful adulteration of drugs or medicinal preparations. 2. Conviction for criminal offenses. 3. Wilful tampering with the prescriptions of physicians. 4. Wilful non-observance of the laws relating to the sale of poisons. 5. Covering unqualified persons or lending his name or services to any company formed for the purpose of evading the requirements of the pharmacy act.

PURIFICATION OF RESIN.—One process consists of melting the resin and passing through it a current of chlorine gas, acidifying with sulphuric acid, washing with boiling water, and finally with hot water containing nitric acid. Another process consists of melting and then boiling the resin with a saturated solution of salt. After boiling for some minutes in a solution of chromic acid or a solution of bichromate of potash with twice its weight of sulphuric acid, it is washed with a slightly ammoniacal water. Another method consists in heating the resin with a mixture of chalk, dioxide of manganese and potassium bichromate, and filtering through sand. Heating with powdered zinc, with or without sodium bisulphate, has also been suggested. Sulphuric acid and zinc chloride at high temperatures have also been tried. Seemingly the best process consists of first filtering to separate insoluble matters and dirt, then heating to about 150° C., with 5 per cent of zinc chloride for an hour or two, and then adding 12 per cent of bichrome in the form of a powder. After sufficient heating, the mass is allowed to cool down to 100° C., and is filtered. Lastly we have to mention purification by anhydrous sulphuric acid with heat under pressure, in a sheet-iron cauldron, which can be heated by superheated steam and fitted with a cover capable of resisting a pressure of 5 kilos. to the cubic centimeter. In this 100 kilos. of the resin to be purified are placed, heated to fusion, the pressure raised to 4 kilos., and the sulphuric acid added. The whole is heated to 100° C. for an hour, when it is left to cool, and washed with boiling water. The sulphuric acid process and the zinc chloride process are often worked in conjunction with each other.

SEDATIN.—Para-valeryl-amido phenol. A patented sedative made by reaction between para-amido-phenol and valeric acid. Dose not given.

NEW REMEDIES.

IODO-CAFFEINE.—A compound of caffeine with sodium iodide; unstable, hot water is sufficient to decompose it.

IODOL CAFFEINE.—A crystalline compound formed by the action of iodol on caffeine. Inodorous and tasteless; recommended because of its greater stability than iodol.

ALUMINOL.—Aluminium salt of naphthol-sulfonic acid. A fine powder, very soluble, employed for antiseptic dressings; non-poisonous when employed externally; dissolves in purulent discharges, hence does not stop up wounds.

SODIUM PEROXIDE.—Employed as bleaching and oxidizing agent; yellowish powder, very soluble in water. In contact with water, oxygen is disengaged; with dilute acids it forms hydrogen peroxide; of course the liquid must be well cooled. Contains 20 per cent active oxygen.

RUBIDIUM IODIDE.—The Stassfurter potassium salts furnish the source of this base. The iodide is offered as a substitute for the corresponding potassium and sodium salts; inodorous white crystals; milder taste; permanent in air; more soluble than KI; free from the disturbances produced by the potassium base KI.

XYLENOL SALOLS.—Made by the action of dehydrating agents on a mixture of salicylic acid and xynol, yielding ortho, meta and para salicylate of xynol. Physically and chemically resembles the well-known salols, insoluble in water, alcohol and ether; without any noticeable taste or odor. Employed as intestinal infestants.

GALLANOL.—An anilid of gallic acid; obtained by heating aniline and tannin together. Forms colorless crystals, bitter taste; very slightly soluble in cold water, more so in hot water and alcohol. Employed as a substitute for pyrogallol in psoriasis, and has the advantage of being non-poisonous and non-irritating. In ointment, 10 to 20 per cent.

FORMANILID.— C_6H_5NHCOH . Prismatic crystals, very soluble. In hypodermic injections of 3 per cent solution acts as an antiseptic. A 20 per cent solution, when applied to the tongue, produces long numbness. Sprinkled upon bleeding wounds, it stems the flow of blood better than antipyrine. As an anodyne the maximum dose is 0.5 gm.

CHLORALOSE.—Anhydro-glucio-chloral. Prepared by Harinot from anhydrous chloral and glucose; crystalline, sparingly soluble in cold, and very soluble in alcohol and hot water. Hypnotic action greater than chloral, showed no toxic properties. Dose of 0.5 gms. produced deep and quiet sleep in individuals who were not affected by other hypnotics. Its solution is very bitter; best given in capsules.

MERCURY GALLATE AND TANNATE.—Mercuric gallate is prepared by precipitating a solution of mercuric acetate with gallic acid, yielding on drying a brownish powder. Mercurous gallate is prepared from mercurous nitrate and gallic acid, and yields a dry, greenish powder. Tannate of Mercury—76.2 gms. tannin is triturated with 25.7 gms. yellow oxide of mercury and 50 c. c. of water; when dry is olive green. Both are employed as antispasmodics. In form of pill, combined with extract cinchona. Daily total dose, 0.1 to 0.2 gms.

FORMULARY AND QUESTION BOX.

The object of this department is to furnish our subscribers with reliable and tried formulas and to discuss questions relating to practical pharmacy, prescription work, dispensing difficulties, etc.

Requests for information are not acknowledged by mail and ANONYMOUS COMMUNICATIONS RECEIVE NO ATTENTION. To insure answer in the next number, queries should be in our hands ten days prior to the date of issue.

6092. Prescription Query.

(G. E.)—Referring to the prescriptions in the March 15, 1894, Era, A. Rosenwald, Chicago, Ill., submits the following procedure in compounding:

(1)
Zinc oxide..... 2 drams.
Zinc carbonate, precipitated 1 dram.
Petrolatum..... ½ ounce.
Solution of lime, enough
to make..... 4 ounces.
Triturate the zinc oxide and zinc carbonate with the petrolatum, then gradually add the solution of lime, making an emulsion.

(2)
Carbolic acid..... 2 ½ drams.
Extract opium..... 2 drams.
Olive oil..... ½ pint.
Rub the extract of opium, small quantities at a time, with the olive oil. Then add the carbolic acid.

6093. Effervescent Bromide Compound.

(Subscriber)—See No. 5812, page 548, Dec. 15, 1893, Era.

6094. Sweetening the Peet.

(E. E. D.)—See No. 3853, Jan. 1 Era, page 13.

6095. Liniment.

(J. F. P.)—We cannot give the formula you desire. Why not try some of the formulas for liniments given in the National Formulary? See also March 1st Era, page 210.

6096. Thymoline.

(R. S. C.)—The manufacturers of this preparation send us literature which states that Thymoline is an antiseptic compound, each fluid ounce of which contains ½ grains thymol, ½ grain menthol, ½ minims each oils of eucalyptus and cinnamon, 4 grains benzoic acid, 15 grains boric acid and 1 dram peroxide of hydrogen.

6097. Photographic Developer.

(H. D. A.)—The best way for you to gain a knowledge of the developer for the films used in the Eastman Daylight Kodak is to prefer your request directly to the Eastman Company, Rochester, N. Y. Every photographer has his particular and favorite developer, and manufacturing and supply houses recommend developers with particular reference to the nature of the work to be done.

6098. Expectoant.

(F. K.)—We cannot give you the formula for the proprietary article you name, but you will find a number of excellent ones for cough preparations and expectoants in general on page 308 of our last issue. Very frequently formulas for cough mixtures have been published in the Era, and you should have no difficulty in selecting one which will be thoroughly satisfactory.

6099. Flavoring Extract of Rose.

(Subscriber)
(1)
Red rose leaves..... 2 ounces.
Oil of rose..... 1 dram.
Alcohol..... 2 pints.
(2)
Deodorized alcohol..... 500 parts.
Proof spirits..... 300 parts.
Extract of rose-geranium 100 parts.
Oil of rose..... 5 parts.
Magnesium carbonate..... 5 parts.
Color with tincture of alkali.

6100. Sticky Fly Paper.

(A. H. H.) The ordinary method is to paint heavy, unstized manilla paper with common glue, using an ordinary flat paint brush, and allowing to dry. Then follow with one or two coats of the following mixture, made by melting over a gentle fire, stirring constantly: Castor oil, 4 ounces; resin, 12 ounces. Another mixture which may be spread upon paper prepared in the same way is: Castor oil, 8 ounces; resin, 21 ounces; sugar, 4 ounces.

(2)
Gum thus..... 4 ounces.
Linsed oil..... ¼ ounces.
Honey..... 1 ounce.
Melt and mix well, spread over sized paper when hot.
See also Era August 15, 1893, page 158.

6101. Ichthyol and Hydrastine Sulphate in a Prescription.

(C. E. M.)—
Ichthyol..... 2 drams.
Hydrastine sulphate..... 30 grains.
Aqueous solution cubeba 3 ounces.
Solution ammonium acetate..... 3 ounces.
Tincture nux vomica..... 3 drams.

We find upon trial that a clear solution cannot be made. The hydrastine sulphate is insoluble in the solvents of the mixture. The prescription should, if dispensed at all, be sent out as a shake mixture. Under various modifications it has been given the rounds as an alleged cure for the liquor thirst and drink habit. If of any index of its value and usefulness, it must be truly valuable.

6102. Tincture Guaiac and Mucilage of Acacia.

(E. E. D.) asks if a clear mixture can be made from the following:

Mucilage acacia..... ½ ounce.
Tincture guaiac..... 1 ounce.
Compound tincture cinchona, enough to make..... 4 ounces.

No. The mucilage is incompatible with the tinctures. Why not omit it and dispense the mixture under a shake label?

6103. Stain for Violets.

(M. McD.)—To darken the wood, rub over it nitric acid, sp. gr. 1.2, and after standing 12 hours, wash and dry thoroughly. Then use either of the following: (1)

Prepare a groundwork with a strong, hot, aqueous solution of logwood extract; then apply a solution of 3 ounces potash, 3 ounces red sanders, 2½ pounds gum shellac, and 1 gallon water, dissolved over a quick fire.

(2)
Boil 1 ounce logwood extract in 1 pint soft water, and add about 2 drams of cream tartar. Use the stain hot, and give several coats if necessary, drying between each. Use a saw-edged graining brush and asphaltum varnish, sufficiently thinned, to produce the proper markings.

6104. Tasteless Syrup of Quinine.

(A. A. S.)—Try the following:
Quinine sulphate..... 1 dram.
Cinchonine sulphate..... 1 dram.
Sulphuric acid, q. s.
Oil of orange, q. s. to flavor.
Saccharin..... 4 grains.
Alcohol..... 1 ounce.
Glycerin..... 1 ounce.
Syrup, enough to make, 8 ounces.

Dissolve the quinine sulphate and cinchonine sulphate in 4 ounces of the syrup by means of sulphuric acid. Dissolve the oil of orange or other suitable flavoring, together with the saccharin, in the alcohol and glycerin, add to the quinine solution with enough syrup to make the mixture measure 8 ounces. See also reply to query No. 5777, Dec. 1, 1893, Era, page 501.

6105. Embrocation.

(Ret)—The Pharm. Ztg. gives this:

(1)
Oil of amber..... 4 parts.
Oil of cloves..... 4 parts.
Olive oil..... 15 parts.
An English formula reads as follows:
(2)
Olive oil..... 20 parts.
Oil of cloves..... 10 parts.
Oil of amber..... 10 parts.

(3)
Asafoetida 2½ drams is digested with 8 fluid ounces of olive oil for several hours. The clear solution is decanted and mixed with 2 drams each of oils of caraway and turpentine, and a few drops of gaultheria.

6106. Bismuth Subnitrate and Syrup of Hydriodic Acid in a Prescription.

(C. A. L.) says in mixing bismuth subnitrate with syrup of hydriodic acid a black mixture was obtained. In using another make of syrup of hydriodic acid, an orange-colored precipitate was obtained, which, upon standing, became black as in the prior instance. What is the cause of the reaction, and what causes the difference in color? Bismuth iodide of variable composition is formed. This is shown by the color changes noticed, the composition of the iodide varying from a light yellow to a dark, dirty brown color. The reaction may possibly be modified by the presence of glucose or other reducing agent, sometimes added to the syrup.

6107. Prescription Query.

(Subscriber) asks what reactions occur when the following prescription is compounded:

Potassium chlorate..... 2 drams.
Tincture ferric chloride..... 3 drams.
Dilute muriatic acid..... ½ dram.
Solution ammonium acetate..... 1 ounce.
Syrup of lemon..... 1 ounce.
Water, enough to make..... 4 ounces.

Several reactions are likely to occur, depending upon the order in which the various ingredients are put together. In whatever way combined there is an evolution of free chlorine produced by the action of the hydrochloric acid upon the potassium chlorate. The writer of the prescription has prescribed more potassium chlorate than can be held in solution in the solvents of the mixture, quite an appreciable amount of it settling to the bottom of the bottle upon standing.

6108. Arsenic Wafers.

(H. D. A.)—We do not believe in the use of arsenic or other potent substances, except under the advice and watchfulness

of a competent physician. For this reason we object to the preparation mentioned, or any others claiming to contain arsenic (it being immaterial whether they do or do not). We have seen statements with reference to this particular article that there is not enough arsenic present to cause any results at all, to say nothing of injurious ones, from its continued and excessive use. We are told that each wafer or triturate contains in the neighborhood of 0.001 grain of white arsenic, with sugar of milk as the vehicle. We are opposed to preparations of this nature and to all which have no real intrinsic value.

6109. Coloring Benzine and Kerosene.

(F. E. L. and F. K.)—Kerosene and allied petroleum products, it has been stated in print, may be colored by alkanet root, but some experimenters report very unsatisfactory results. We have made trials with various anilins which were readily obtainable in the stores, but the result has been poor. We would suggest that you experiment with other aniline colors which are soluble in these liquids. You would best write to the dealers in colors stating very plainly that you want articles which are soluble in benzine or kerosene, and then a few practical trials will show you whether success may be attained. The solvent properties of these liquids have a certain definite range, which does not include substances soluble generally in aqueous liquors. We fear that on the whole you will not be successful in the matter.

6110. Varnish for Violins.

(M. McD.)—Dissolve over a moderate fire 120 parts of sandarac, 60 parts of shellac, a like quantity of mastic, and 20 parts of elemi in 1,500 parts of highly rectified spirit of wine, and after the solution has boiled up several times, add 60 parts of Venetian turpentine.

(2) Coarsely powder copal and glass, each 4 ounces; alcohol, 1 pint; camphor, ½ ounce; heat the mixture with frequent stirring in a water bath until solution is complete; when cold, decant the clear portion.

(3) Sandarac 1½ ounces.
Mastic, in tears 2 ounces.
Elemi ½ ounce.
Dragon's blood ¼ ounce.
Turpentine ½ ounce.
Castor oil ½ ounce.
Alcohol 10 ounces.

Put the turpentine and spirit in a wide-mouthed bottle, with a small quantity of powdered glass and the mastic. Stir frequently, and after 24 hours add the other resins. Allow the mixture to stand another 24 hours, and then add the oil under stirring. Let the mixture stand for two weeks in strong light, then filter through cotton.

6111. Neuralgia and Rheumatic Cure.

(J. U. B.)—The particular formula you desire is not available. Here are, however, some which may be of service to you:

(1) Ammonium bromide 1 dram.
Sodium salicylate 1 dram.
Tincture hyoseyamus 2 drams.
Water, enough to make... 4 ounces.
(2) Salol 128 grains.

Potassium iodide 256 grains.
Potassium bicarbonate. . . 128 grains.
Elixir adjuvans 1 pint.

(3) Neuralgia pills—
Iron phosphate 440 grains.
Tragacanth, powdered 120 grains.
Quinine sulphate 2½ ounces.
Extract henbane 2 ounces.
Extract aloes ½ ounce.
Acetic extract colchicum ½ ounce.
Camphor 160 grains.

Divide into 3½-grain pills. One to be taken every 3 hours until relief is obtained, then one twice a day for a few days.

See also Sept. 15, 1893, Era, page 252.

6112. Drops Versus Minims.

(Cardamom)—If a prescriber has seen fit to prescribe 20 drops of tincture of aconite, or creosote, that amount evidently should be dispensed. You would have no right to dispense 20 minims, as that quantity of either was not ordered. Upon the other hand, the exact quantity of a drop can only be approximated. The conditions which influence its size and weight are very variable, temperature being the greatest factor to change the volume, even from the same container. The laws of specific gravity and volume clearly demonstrate this fact, and the term, as a measure of quantity, should be discarded. In an article published in the May 1st, 1891, Era, page 268, there is a table showing the practical difference between the drops and minims of various fluids. In the instance of tincture of aconite, it is stated that 60 minims dropped from a common shop bottle equaled 120 drops. When dropped from the glass stopper of the same bottle, there were 102 drops, and when dropped from a minim measure the same quantity equaled 163 drops. Assuming the 20 drops of tincture of aconite to be measured by either of these standards, you can readily see the difference in quantity were 20 minims dispensed.

6113. Witch Hazel for the Hands.

(Subscriber).—Aromatic Witch Hazel Vinegar:

Extract cassia ½ ounce.
Extract violet ½ ounce.
Extract rose ½ ounce.
Tincture orris 4 ounces.
White wine vinegar 1 pint.
Distilled witch hazel,
enough to make 2 pints.
(2) Green soap 1 part.
Compound tincture benzoin 4 parts.
Glycerine 16 parts.
Distilled witch hazel 8 parts.
Rose water 8 parts.

(3) Glycerine 4 pounds.
Distilled witch hazel 1 quart.
Rose water 1 quart.

(4) The Era Formulary gives this for moisture of the hands:

Chromic acid 5 grains.
Distilled witch hazel ½ ounce.
Especially useful for moist, clammy hands. Should be applied with care.

6114. Haines' Golden Specific.

(M. T. A.)—The formula you quote, viz.: 16 parts bayberry root bark, 8 parts African ginger, and 12 parts capsicum, is that which has been several times stated to be the approximate composition of this proprietary article. You can judge yourself

whether in these substances there is any inherent virtue as regards the power to destry the appetite for liquor. We are frank to say that we are exceedingly skeptical. We have several times expressed our views with regard to liquor cures in general, and from examination of the formula above quoted we see no reason to subject them to alteration. The whole subject has been thoroughly considered in these pages, and you are referred to the Era for October 1, 1893, page 299; Nov. 15, 1893, page 450, and December 1, 1893, page 504. See also review of the book upon "Alcoholism and Its Treatment" in the April 1, 1893, issue, page 320.

6115. Who Was to Blame?

(A. R.) asks whether a druggist was right in dispensing the following prescription:

Aqueous extract aloes... 1 dram.
Codeine 5 grains.
Extract gentian, q. s.

Make into 6 pills. Take two pills a day. After taking the pills the patient experienced severe pain, and the prescriber said he wanted the prescription made into 60 pills instead of 6. In the first place, the physician made a mistake, as he says he wanted the mass divided into 60 pills instead of 6 as he had written. The druggist made another mistake in putting up the prescription, as he should have noticed the unusually large amount of extract of aloes contained in each dose. The maximum dose of extract of aloes is stated to be 10 grains. In this instance the patient, in taking two pills, received 20 grains of the extract, an unusual amount and one which should not be dispensed. The druggist erred in compounding the prescription, as did the physician who wrote it.

6116. Embalming Fluid.

(Subscriber.) Here are a number of formulas taken from the Era's files:

(1) Salicylic acid 4 drams.
Boric acid 5 drams.
Potassium carbonate 1 dram.
Dissolved in hot water 12½ ounces.
Glycerine 5 ounces.
Then add oil cinnamon, oil cloves, each 3 drams, dissolved in alcohol 12½ ounces.
(2) Arsenious acid 20 parts.
Bichloride mercury 30 parts.
Alcohol 200 parts.
Carbolic acid water (5 per cent) 3,250 parts.

The quantity required in the case of adults is 5 to 6 quarts.

(3) Thymol 15 grains.
Alcohol 3 fl. ounces.
Glycerine 10 fl. drams.
Water 5 fl. ounces.

Dissolve the thymol in the alcohol, add the glycerine and then the water. This has also been extensively used for preserving anatomical specimens.

(4) The circulatory system is cleansed by washing with cold water, until it issues quite clear from the body. This may occupy from two to five hours. Alcohol is then injected so as to extract as much water as possible. This requires about fifteen minutes. Ether is then injected to extract the fatty matters, this requiring from two to ten hours. A strong solution of tannin is then injected and allowed to be absorbed by the tissues, which should require from two to ten hours. The body

is then dried in a current of warm air which has been passed over calcium chloride. This may occupy from two to five hours, when the operation is complete.

6117. Preserving Eggs.

(Subscriber)—

Marsh dissolves in each gallon of water 12 ounces of quicklime, 6 ounces of common salt, 1 dram of soda, $\frac{1}{2}$ dram salt-peter, $\frac{1}{4}$ dram tartar and $1\frac{1}{2}$ drams of borax. The fluid is brought into a barrel and sufficient quicklime to cover the bottom is then poured in. Upon this is placed a layer of eggs, quicklime is again thrown in and so on until the barrel is filled, so that the liquor stands about 19 inches deep over the last layer of eggs. The barrel is then covered with a cloth, upon which is also scattered some lime.

(2)

A French authority gives the following: Melt 4 ounces clear beeswax in a porcelain dish over a gentle fire and stir in 8 ounces of olive oil. Let the solution of wax in oil cool somewhat, then dip the fresh eggs one by one into it so as to coat every part of the shell. A momentary dip is sufficient, all excess of the mixture being wiped off with a cotton cloth. The oil is absorbed in the shell, the wax hermetically closing all the pores. It is claimed that eggs thus treated and packed away in powdered charcoal in a cool place have been found after two years as fresh and palatable as when newly laid.

(3)

The Cyclopaedia of Receipts says that water glass or silicate of sodium has recently been used in Germany for rendering the shells of eggs non-porous. A small quantity of the clear syrupy solution is smeared over the entire surface of the shell. On drying, a thin, hard glassy film remains, which serves as an admirable protection and substitute for wax, oils, gums, etc.

(4)

Dip the eggs into a solution of two ounces gum arabic in a pint of cold water, let them dry and pack in powdered, well burned charcoal.

6118. Cheap Mucilage.

(J. K. M.) A cheap mucilage may be made

(1)

By dissolving clear glue in equal volumes of water and strong vinegar and adding one-fourth of an equal volume of alcohol, and a small quantity of solution of alum in water. The vinegar prevents the glue from gelatinizing by cooling, but the same result may be accomplished by adding a small quantity of nitric acid. Some of the preparations offered for sale are merely boiled starch or flour mixed with nitric acid to prevent the gelatinizing. A strong aqueous solution of dextrin makes a very adhesive and cheap mucilage.

(2)

Here is a formula which has been in service in our office work for some time with very satisfactory results. As given the formula makes a very thin, yet adhesive mucilage. If you desire a thicker mucilage add more dextrine:

Dextrine	2 ounces.
Powdered alum	1 dram.
White sugar	$\frac{1}{2}$ ounce.
Water	4 ounces.
Solution carbolic acid	2 drams.

Dissolve all the ingredients except the carbolic acid, in the water previously

raised to the boiling point. Continue the boiling until dissolved; when cold, add the carbolic acid.

(3)

Dextrine	3 ounces.
Acetic acid	1 ounce.
Methylated spirit	1 ounce.
Distilled water	5 ounces.

The dextrin is dissolved in the acid and water by the aid of heat, and the spirit added when cold.

6119. Book on the Commercial Side of the Drug Business.

(Cardamom.) We know of no work which will so thoroughly post a man, that after its perusal, he is competent to conduct a drug business or any other enterprise. Success depends upon the possession of certain principles and characteristics by the man himself. There is, of course, much to be learned from books upon business affairs, but, primarily, each must work out his own salvation. The best teachers that we know of are the current journals in various lines of trade, through diligent reading of which you may pick up a hint here, a hint there, that may be of much practical service in the conduct of your business. We call to mind a little book on "How to Keep a Store," which gives numerous hints and directions for fitting up a general store room and keeping its accounts and conducting its business. There have been published in the Era from time to time, particularly in recent issues, papers bearing upon this subject, and we shall have more in succeeding numbers. A knowledge of bookkeeping is essential in any business, and can only be learned by diligent application to books and thorough practical experience in business life. We shall shortly have a paper devoted to this particular subject.

The foregoing remarks apply as well to the matter of fitting up a store with fixtures, fountain, etc. Each must be his own judge in these particulars. The modern drug store requires showy fixtures, soda fountain and other articles which can be obtained from firms which make a specialty of these lines of wares, and from whom you may obtain much valuable assistance in the way of suggestion. The fixtures must not be too elaborate for the business you anticipate doing. We believe you will find some useful points in a paper presented on page 327 of our last issue, and in addition we refer you to the articles in the two numbers preceding under the same general head of drug store management. See also several articles on advertising by druggists.

6120. Gliding on China.

(W. J. L.) The gliding is done either by adhesive varnish or by heat. The varnish may be prepared by dissolving in hot boiled linseed oil an equal weight of either amber or copal. This is diluted with a proper quantity of oil of turpentine so as to be applied as thin as possible to the parts to be glided. Let stand, after varnishing, about twenty-four hours, then heat in an oven until so warm as to almost burn the fingers when handled. The heat softens the varnish, which is then ready to receive the gold leaf. It may be applied with a brush or plectrum of cotton, and the superfluous portion brushed off. Burnish when cold, interposing a piece of thin paper between the gold and burnisher. Where burning-in is practiced the gold reduced to powder is mixed with

powdered borax glass (anhydrous borax) moistened with a little gum water, and applied to the clean surface with a camel's hair pencil. When quite dry the article is put into a stove heated to about the temperature of an annealing oven. The gum burns off and the borax, by vitrifying, cements the gold with great firmness to the surface.

(2)

Gold Luster for China Painting.—Dissolve 1 dram gold in $\frac{3}{4}$ ounce of nitrohydrochloric acid, or simply dissolve this weight of chloride of gold in water. Add 6 grains of metallic tin, and enough nitrohydrochloric acid, if required, to dissolve it. Pour with constant stirring into a mixture of $\frac{1}{2}$ dram of balsam of sulphur and 20 grains oil of turpentine. As it stiffens add $\frac{1}{2}$ dram oil of turpentine and mix. More gold gives a brighter effect; tin inclines it to a violet tinge. Balsam of sulphur is made by boiling together in a covered vessel 1 part flowers of sulphur and 4 parts of linseed oil until the mass thickens.

(3)

To Dissolve Gold for Gliding Which Has to be Fired.—Triturate in a mortar some gold leaf and honey until reduced very fine. Then dissolve the honey with hot water and mix with a little gum water for use, or, dissolve gold in hot nitrohydrochloric acid, evaporate to dryness in a porcelain dish and dissolve in ether for use.

(4)

Gliding Compound for China.—The Techno Chemical Receipt Book gives this: Dissolve 1 ounce of gold in a mixture of 4½ ounces each of nitric and hydrochloric acids; then add 18½ grains each of tin and butter of antimony, and when the whole is dissolved dilute the fluid with 1 pint of water. The solution of gold is decomposed by a thick liquid prepared in the following manner: Dissolve at a moderate heat $\frac{1}{2}$ ounce each of sulphur and Venetian turpentine in 2½ fluid ounces of turpentine, until the solution has acquired a thick consistency and a dark brown color, and, when cold, add 1½ ounces of lavender. Pour the solution of gold upon this balsam, heat it moderately and stir. The solution of gold will be discolored, and the gold, entirely dissolved, passes into the oily fluid, which, when cold resembles rosin. The liquid standing over it, which contains the acid, is poured off, the oily fluid washed with warm water, and when the last traces of moisture have been removed, 2½ ounces of oil of lavender and 3½ ounces of oil of turpentine are added, and the mixture is heated until the whole is dissolved, when it is poured over 1¼ drams of sublimate of bismuth and allowed to settle. The clear portion is poured off and concentrated, an auriferous balsam consisting of a thick fluid with a light greenish luster is obtained in this manner. The Venetian turpentine is added as a drier. The auriferous resins remaining after the evaporation of the volatile oils become decomposed when exposed to heat, and, without melting, produce at a low temperature a residue of carbon and gold having the appearance of a very thin leaf.

6121. Black Ink.

(J. K. M.) Here are a number of formulas taken from the back files of the Era:

(1)

Logwood chips	1 pound.
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Boil in 1½ gallons of water until reduced to 2 quarts. Pour off and repeat as before. Mix, and add water to make 1 gallon in all. Then add bichromate of potash ½ ounce, Prussian blue ½ ounce, prussiate of potash ¼ ounce. Boil again 5 minutes, then strain and bottle.

(2) Boil repeatedly 160 parts of logwood with water. Pour the different decoctions together and reduce them by evaporation to 1,000 parts by weight. Dissolve in this liquid 1 part of neutral yellow chromate of potash, let it clear by standing, and draw the clear ink into bottles, which should be hermetically closed. This is a cheap and good ink, which flows freely from the pen, but spoils quickly if allowed to stand in open vessels.

(3) For an extemporaneous black ink:
Tannic acid..... 312 grains.
Powdered acacia..... 2½ drams.
Pyrogallic acid (Scher-
ing's) 16 grains.
White sugar..... 1 dram.
Sulphate of iron (best). 2½ drams.
Distilled water..... 1 pint.
Creosote 2 drops.

The quantity of acacia can be diminished if a freer flowing ink is desired.

(4)
Extract logwood..... 15 parts.
Carbonate of sodium,
crystallized 4 parts.
Neutral chromate po-
tassium 1 part.
Water 1,000 parts.

Dissolve the extract in 900 parts of the water, allow it to deposit, decant, heat to boiling, and add the carbonate of potassium; lastly, dissolve the chromate of potassium in the remainder of the water, and add to the logwood solution drop by drop with constant stirring.

(5)
Sulphate of Iron..... 1 ounce.
Logwood 1 ounce.
Gall-nuts 3½ ounces.
Gum arabic..... 1 ounce.
Pulverize each separately, mix, and add White wine, or acetic acid, 1 quart.

(6)
Nigrosine 160 grains.
Distilled water..... 16 ounces.

6122. Syrup Yerba Santa.

(B. S.) A very satisfactory formula may be found on page 127 of the National Formulary. Here are some others:

(1)
Fluid extract yerba santa 4 ounces.
Syrup, enough to make..... 32 ounces.
Heat the syrup to about 160° F., add the fluid extract and let the mixture stand in a covered vessel for two or three hours, occasionally stirring, a temperature of 140° F. being maintained. It may be necessary to supply the loss of water through evaporation by the addition of a little water. When perfectly cool the syrup is strained.

(2)
Fluid extract yerba santa 400 parts.
Stronger water ammonia. 4 parts.
Sugar 600 parts.
Water, enough to make..... 1,000 parts.
To 300 parts of water add the ammonia; to this add the fluid extract, stirring constantly, and allow to stand in an uncovered vessel until the ammoniacal odor disappears. Filter, add water to weigh 400 parts, and dissolve the sugar by agitation.

(3)
Fluid extract yerba santa 2 ounces.
Magnesium carbonate..... 1 ounce.
Sugar 10 ounces.
Water, enough to make..... 16 ounces.
Triturate the fluid extract with the carbonate of magnesium, and add about 7 fluid ounces of water, stirring well. Filter, adding enough water through the filter, to make the filter measure 9 fluid ounces. In this dissolve the sugar by agitation, without heat, and strain.

(4)
Yerba santa leaves..... 2 troy ounces.
Sugar 24 troy ounces.
Borax
Water, of each sufficient to make..... 2 pints.

Contuse the yerba santa so as to form a coarse powder, and mix it with 2 drams of borax. Mix borax and water in the proportion of 2 drams in the former and 1 pint of the latter. Moisten the yerba santa with 2 fluid ounces of this solution and pack it firmly into a cylindrical glass percolator; then pour on the menstruum until 1 pint of percolate has slowly passed. Should this contain a pronounced precipitate add borax at intervals in small amounts until all or nearly all of the sediment has dissolved. Filter the liquid and add the sugar to 14 fluid ounces of it. Stir the mixture until most of the sugar has dissolved, and decant the syrup. On the residue pour the remaining filtrate, apply heat, and after solution add this syrup to the previous lot and strain.

6123. Blood Albumen.

(J. J. McC.) Blood Albumen occurs in various forms. The lowest quality is packed in casks in the liquid state, and consists merely of blood which has been defibrinated by whipping. The purer forms of blood albumen are prepared from the blood of slaughtered animals, which, after coagulation, is filtered: 5 oxen, or 20 sheep, or 34 calves are said to yield the same quantity of dry albumen, viz., 2 pounds. In producing blood albumen for commerce, the objects borne in mind are the attainment of a substance whose solution is free from color, possesses perfect coagulation, and is cheap. The superior price of egg albumen has led to various attempts to produce blood albumen of a similar whiteness and quality. In these attempts animal charcoal, incipient coagulation, air rendered ozonic by means of electric induction, have severally been employed, but none have proved capable of producing an albumen at all comparable to egg albumen.

Campe recommends that the dishes and sieves for the separation of the serum should be in close proximity to the slaughter houses, since the retarding of the separation is almost sure to be followed by more or less coloration of the serum which, of course, leads to a dark-hued albumen. The blood clot is cut into small lumps, placed on the sieves, and left there from 40 to 48 hours. The first portions of the serum which pass through are always red, but after the lapse of about an hour, the percolating liquid shows a clear yellow color, the tinge varying, from deep gold to that of pale hock. After 48 hours the clear serum is drawn off, care having been taken that the lowest layer, containing the red blood corpuscles is kept back. About 25 to 30 per cent of serum is thus obtained from ox blood, and this raw

material can be manufactured into either the so-called "natural" albumen, without gloss, or the "patent" glossy albumen.

In making natural albumen ¼ pound of oil of turpentine is added to 100 pounds of serum and the whole is whipped for an hour with apparatus similar to the dasher of an old-fashioned churn. The turpentine, not only bleaches the serum and extracts the grease, but also helps to preserve it. It is allowed 24 to 36 hours to settle, when the clear serum is drawn off from the sediment. The drying is done in japanned iron dishes 1 foot long, 6 inches wide, and ¾ inch deep. The temperature is at first about 122° F., and is raised to nearly 135° F. (57° C) for 2 hours, after which it is allowed to fall to 118 or 120° F. (48 to 49° C). The drying occupies about 36 hours.

The manufacture of "patent" albumen differs from the above in the use of acids. To 100 pounds of serum are added 7 drams sulphuric acid, mixed with 6½ ounces concentrated acetic acid, and 6 pounds water; ¾ pound oil of turpentine is next mixed with it, and the compound is whipped for an hour. After settling for a day or more, the clear liquid is poured off, neutralized with ammonia, and dried as before. About 10 pounds of serum will yield 1 pound of dried blood albumen.

Both these preparations are called "primary" products, as distinguished from the "secondary" and "tertiary" products obtained from the residues left in the dishes after the drawing off of the pure serum and from the clot on the sieves. The albumen from the last named source is, of course, of very inferior quality, but is largely used in sugar refining.

6124. Silver Plating for Amateurs.

(H. D. A.) We have heard of instances where the amateur has been successful in a financial way in silver plating, and there are numerous firms which prepare full outfits for this sort of work. But as in all businesses, success comes only through perfect familiarity. There are many fakirs traveling through the country disposing of silver plating solutions which are frauds in every particular. The only satisfactory way is through the use of the electric current for the deposition of the silver upon the article to be plated. Such works as Napier's "Manual of Electro Metallurgy," Wahl's "Galvano Plastic Manipulations," etc., containing definite directions for plating in gold, silver and other metals, you will find of much service. You will also find desirable information in regard to the matter in various technical receipt books, and we republish below some formulas for producing the necessary solutions for use with the battery.

Silver Plating Solutions—For silver plating, the bath consists of potassium silver cyanide, prepared by precipitating solution of silver nitrate with potassium cyanide and dissolving the washed precipitate in excess of potassium cyanide solution.

(1)
Potassium cyanide..... 12 ounces.
Water 1 gallon.
Silver cyanide, about..... 1 tr. ounce.

Filter and use in a porcelain or glass vessel. For the whitening bath dissolve 1 lb. potassium cyanide in 1 gal. water, add ¼ oz. troy of silver cyanide and filter the solution. The baths are provided with silver feeding-plates for anodes proportionate in size to the surface of the work to be plated. These are connected with

the positive pole of the battery. The cleaned articles are connected by a copper wire with the zinc pole of the battery, dipped for a minute or two in the whitening bath, and when uniformly coated with a white film of silver, transferred to the plating bath under similar conditions. After the work is thoroughly cleaned and just before putting it into the bath, dip it momentarily in strong nitric acid or a mixture of equal parts nitric and sulphuric acids and rinse quickly. After this treatment it is sometimes dipped into dilute mercurous nitrate solution and rinsed again. This has the effect of coating the clean metal with a film of mercury, which secures a perfect adhesion of deposited silver.

Another formula sometimes used is:

Soft water.....	1 gal.
Cyanide of potassium.....	8 ozs.
Nitrate of silver.....	54 "

Dissolve the nitrate of silver in a sufficient quantity of pure water (soft) and add to it gradually, with constant stirring, hydrocyanic (prussic) acid until all the silver has been precipitated as cyanide, which may be known by the formation of no cloud in a portion of the clear liquid when a drop of the acid is added to it. Avoid adding an excess of the acid. Throw the precipitate upon a fine cotton cloth filter, and as the liquid runs through wash the precipitate on the cloth several times with pure water. Dissolve the cyanide of potassium in the water and stir in the cyanide of silver carefully removed from the cloth. If it does not dissolve in the liquid entirely, add more cyanide of potassium until it does, stirring continually. Let the impurities settle, and the bath is ready for use. Many electroplaters use a preliminary or silver "whitening" bath, which is the same composition, but contains less silver, more cyanide and is worked with somewhat stronger current. To make the work a financial success you will have to be sure of your own ability as a workman and then adopt ordinary business methods for drumming up trade. The subject is one which is a little outside the province of a pharmaceutical journal. You can get better aid from those skilled in the art.

PRESERVING EGGS—It is well known, says Food and Sanitation, that although any "kerosene" will preserve eggs for a certain length of time, the flavor penetrates and seriously affects their quality, as also does any varnish. The only absolutely certain and flavorless protection for eggs is petroleum jelly or vaseline, and this fact appears to be almost unknown. If eggs, within a day or two after being laid, are rubbed over thinly with a rag soaked in vaseline, they will keep, with all the flavor and curdiness of fresh-laid eggs, for at least six months without the slightest change, except that they slowly lose flavor and become rather tasteless, although this does not affect their quality in any way except for boiling. The packing material used must be perfectly free from taste or smell, as this would be absorbed by the vaseline and transferred to the contents of the shell, and for this reason we always use salt for packing, keeping the same salt and boxes from year to year. No doubt powdered chalk or cork dust would answer the same purpose, but as salt answers our purpose perfectly we have made no further experiments in this direction.

EXAMINATION QUESTIONS.

This Department is for the publication of questions and answers from our readers, the object being to place before them questions for self-examination and to indicate the directions in which study can be profitably carried on.

We select questions to which replies are desired, particularly questions suggested by personal experience and study.

Correct answers to the questions in each series will be published in a subsequent issue of the paper, as announced, together with the names of all persons sending us correct replies.

Write the number of the series at the top of your reply and write on one side of sheet only.

Address—EDITOR PHARMACEUTICAL ERA,
Box 583, Detroit, Mich.

SERIES NO. 3.

Replies should reach us not later than April 15th, 1894. Correct answers, together with the names of all persons answering correctly eight or more of the questions, will be published as soon thereafter as possible.

1. In what proportion must two quantities of powdered opium, containing 13.5 and 16 per cent of morphine respectively be mixed to produce 8 ounces of opium containing 14 per cent of morphine?

2. A quantity of official sulphuric acid weighs 15 grams. How many cubic centimeters does it measure? A quantity of official nitric acid measures 25 cubic centimeters. How much does it weigh in grams? In grains?

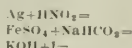
3. How would you distinguish between a root and an underground stem?

4. Which contains the larger percentage of alcohol: a solution made from equal parts by weight of alcohol and water, or one made from equal parts by measure of alcohol and water?

5. What is the percentage of bromine and how many grains of bromine are there in one ounce of potassium bromide?

6. What is an alum, chemically considered? Write the chemical symbols for two alums not containing aluminum. Name the pharmacopoeial and other varieties of alum.

7. Complete the following chemical equations:



8. What is meant by the following prefixes used in the nomenclature of salts: Mono, bi, bin, tri, quadri, di, bis, ter, tetra, super, hyper, per, sesqui, sub, hypo, proto, ortho, meta, pyro, para.

9. What are the chemical differences between red and yellow oxides of mercury? Give the chemical formula for each.

10. Which contains the more quinine (alkaloid), quinine bisulphate or quinine sulphate? Give the percentage of quinine in each salt and exhibit the figures used in your calculations.

SERIES NO. 4.

Replies should reach us not later than May 1st, 1894. Correct answers, together with the names of all persons answering correctly eight or more of the questions, will be published as soon thereafter as possible.

(1) How would you distinguish between carbonic acid and creosote?

(2) What is a symbol, also what does a chemical formula represent?

(3) How would you prove that the specific gravity of Iron is 7.50?

(4) Define stigma, and mention a drug which the pharmacopoeia directs shall consist wholly of stigmas?

(5) How would you distinguish between gallic and tannic acids?

(6) Name the best excipient for a pill mass with each of the following: An essential oil, potassium permanganate, balsam copaiba, silver nitrate, corrosive sublimate.

(7) How would you dispense the following prescription?

Ferrous sulphate..... 60 grains.

Potassium carbonate..... 36 grains.

Mix, and divide into 24 pills.

(8) How many one-eighth grain doses should there be in one-eighth ounce bottle morphine sulphate as found in the market?

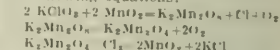
(9) What is an alcohol chemically considered? Name those covered by your definition that are official in the United States Pharmacopoeia.

(10) How would you prove the air to be a mixture and not a chemical compound?

(11) What is the difference between benzoin and benzol?

CHLORINE FROM POTASSIUM CHLORATE AND MANGANESE DIOXIDE.

Prof. McLeod, at a recent meeting of the British Chemical Society, said that some years ago he showed that when a mixture of chlorate of potassium and manganese dioxide was heated, chlorine and oxygen were liberated according to the following equations:



The reactions taking place in almost imperceptible stages. Recently O. Brunck, in the *Berichte*, had stated that at a high temperature ozone and not chlorine was produced from the interaction of these two bodies. Prof. McLeod had therefore again examined the products and proceeded to demonstrate that his view was correct. A mixture of 3 grammes KClO_3 and 0.3 gramme MnO_2 was placed in a tube and connected with two U-shaped tubes, the first containing glass beads moistened with water and the second filled with a solution of nitrate of silver. When the mixture was heated the gas bubbled through the apparatus and quickly precipitated chloride of silver. The residue in the tube was also found to be faintly alkaline—a further piece of evidence in favor of the professor's view. The amount of chlorine evolved was estimated, and stated to be about 0.03. No evidence of ozone was obtained in any of the stages. (Br. and Col. Dr.)

The president remarked that this particular reaction was one of the earliest which a chemist learnt, and it was interesting to know that it was not absolutely settled even yet in spite of the usual text-book statements. Prof. Dunstan asked if it was not possible that an oxide of chloriae was produced, or that the residue contained alkaline peroxide, from which ozone might be obtained at a higher temperature than the boiling point of mercury.

Prof. McLeod replied that the temperature in the tube was considerably higher than the boiling point of mercury, and although he had not completed all his evidence in favor of the production of chlorine, he had come across no indications of ozone.

CAFFEINE CHLORAL.—A mixture of the two in molecular proportions. Administered hypodermically in doses of 0.2 to 0.4 gms. in relieving habitual constipation.

NEWS COMMENT.

E. E. Huyck has opened a drug store at Bay City, Mich.

Two clerks in a Toronto drug store fooling with a revolver; weapon exploded; one young man dead.

A plant for the manufacture of commercial chicory has been established at Chambers, Holt County, Neb.

Luke Hand, a Lake Geneva, Wis., resident, has shipped, so it is stated, ten gallons of skunk oil to the east, where it is sold for medical purposes.

A cylinder of compressed air exploded on the premises of Elmer & Amend, New York, April 3, causing very considerable wreckage of stock. No one hurt.

L. J. Kemp, a prominent citizen and druggist of Ada, O., died March 25. He was 46 years of age. His son-in-law, N. W. Tobias, assumes control of the store.

A man in a down-east drug store vainly consulted Webster's dictionary for an hour or more in search of the address of some person. Thought it was a directory.

It is reported that a number of druggists in Rochester, N. Y., are employing unregistered clerks, and the State Board of Pharmacy proposes to make it warm for them.

A New York newspaper sensationally depicts the sad case of a young man addicted to the "gentian habit," who daily swallows inordinate quantities of the tincture of gentian.

Bergen & Brynildsen have purchased the drug store of P. E. O'Connor, of Graceville, Minn. Mr. Brynildsen has been a silent partner in the business since its beginning in 1890.

Iowa pharmacists are congratulating themselves upon the fact that no legislation prejudicial to their interests is likely to be enacted in the present general assembly of the state.

Leo Joffe, the Bloomfield, N. J., druggist recently arrested on suspicion of setting fire to his store, has been exonerated by the grand jury and threatens to sue the town for \$50,000 damages.

Rochester, N. Y., druggists are cutting at a great rate. The Simon-pure cutter advertises goods at a certain price, the druggists go him one better. Both sides advertising largely dollar preparations at 55 cents.

P. A. Coughell, manager of the Market Pharmacy, Pullman, Ill., has resigned to accept a position with Stoll, Vannatta & Co., distillers, Lexington, Ky., as their representative among the drug trade of Chicago and vicinity.

Eastern capitalists have been in East St. Louis, Ill., looking over the different sites offered for manufacturing purposes. They propose to establish a wholesale druggist supply works on one of the many belt railways or switches.

First Druggist—"What do you think of the A. P. A.?"

Second ditto—"Don't believe in it at all."

First Druggist—"Don't believe in the American Pharmaceutical Association?"

Second Druggist—"What'll you have?"

—Ex.

P. Engeldinger, druggist, Hedrick, Ia., has a coin collection that is both rare and valuable. It consists of American and foreign coins, some of them being over 600 years old. He has eighty-three pieces at present and is constantly adding to it.

The body of Phillip Sommers, a St. Joseph, Mo., druggist, was recently found in an advanced stage of decomposition in one of the rooms of the Hess House, that city. Morphine poisoning is supposed to have caused his death, but whether accidental or otherwise is unknown.

Iowa papers say that Samuel W. Wilkinson, of Indianola, that state, is in Chicago performing wonderful feats as a mind reader. One of his feats was to go into a drug store and properly fill a very complicated prescription. He is not a pharmacist, had never been in that store before and was blindfolded.

The Virginia pharmacy law as amended requires physicians in business on their own account to register before July 1st, and allows practicing physicians living in towns of 1,500 or less, who are recognized by the State Medical Society and have had five years' practice, to register on paying the fee and renewing annually.

Mysterious mail robberies, detectives who cannot find the thieves and hundreds of angry correspondents whose money has gone astray have been making life miserable for certain venders of patent medicines and cosmetics at Southbend, Ind. More than \$10,000 is said to have disappeared from the mail addressed to them.

The Ohio Druggists' Mutual Fire Insurance Association, a Toledo concern, has recently been incorporated at Columbus. The incorporators are C. F. Johnson, F. T. Bower, H. F. Hastings, Fred K. Quine, T. B. Huston, A. Burger, John F. Lebold, M. C. Burlleigh, R. E. Hamlin and H. C. Kirchmaier. The general office will be in Toledo.

A terrific explosion wrecked the drug store of Alexander & Co., Canton, Miss., March 25th. A coal oil lamp fell to the floor and ignited two kegs of powder, which exploded and tore the building to atoms. Mr. Alexander, one of the proprietors, was fatally injured, and a man named Campbell received severe cuts from falling glass.

George A. Stearns caused considerable excitement among his brother druggists in Halifax, N. S., by addressing a letter to all the city doctors, asking their exclusive patronage on condition that he would sell no patent medicines. He gave as another reason that much "counter dispensing" was done in all the drug stores. A well-informed druggist says his scheme is impracticable.

Standish & Shearstone have opened a new drug and grocery store at Lockport, N. Y. Mr. Standish was for twenty-five years a member of the firm of Hartwell & Standish, now J. B. Hartwell & Son, while Mr. Shearstone was for seven years with W. J. Huntley as prescription clerk. John Phillips & Co., of Detroit, furnish the show cases and fixtures; Whittall, Tatam & Co., Philadelphia, the glass-

ware, show and shelf bottles, and the stock and sundries are furnished by New York parties.

William F. Pflueger, representative of Lord, Owen & Co., Chicago, recently took the prize as the most popular traveling man in Wisconsin. A year ago the Wisconsin Druggists' Exchange began giving short biographies of traveling men connected with the drug interests, who would send them their photographs. Each number of the Exchange has contained the picture and short sketch of the life of some of the "boys," and the publisher, Mr. Heimstreet, offered a prize of a gold medal to the one who should receive the largest number of votes, the ballots to be cast at the end of the year by the druggists in the state. Mr. Pflueger led by a large majority.

John J. Hall, of Woodstock, Ont., a druggist with an extended acquaintance among the fraternity in Canada, died after a very short illness, March 17. He was a man of great ability and having the courage of his convictions had, while yet on the threshold of life, earned a place in the hearts of his fellows of which any man might feel proud. He had occupied many positions of public trust, was president of the Ontario College of Pharmacy in 1892 and 1893, and was also a member of the Woodstock town council for a number of years. He was a Liberal in politics and a member of the Church of England. Deceased was 42 years old, and leaves behind a wife and two children.

A Buffalo druggist tells a newspaper scribe that the worst habit on earth is the patent medicine habit. He says: "Men have it a little oftener than women, and one rarely recovers from it, so far as my observation goes. Try one kind of patent medicine and that's all right. Try another kind and maybe that's all right. Try a third and you're a goner. In all my experience of many years I never knew of a person who had tried three different patent medicines, one right after the other, who had not by that time become a confirmed patent medicine fiend, given to reading newspaper advertisements in search of new remedies and of diseases to fit them. In time the habit wipes out its victim, same as morphine or drink would."

NEW HOME OF THE DETROIT FREE PRESS.

Many of our readers will be gratified to learn that increasing prosperity has compelled a change in the business affairs of that well-known journal, The Detroit Free Press. About May 10 the newspaper plant will be removed to the new purchase, the "Abstract building," on Lafayette avenue. Here, with larger quarters, new fittings, large web presses, new boilers and engines and better facilities all around the endeavor will be to still further improve the paper, which, ever since its establishment in 1831, has been a recognized leader in the field of journalism. The old building on Larned street west will hereafter be devoted entirely to the job work and show printing business of The Detroit Free Press Printing Co.

NEW YORK.

New York, April 7.—How many druggists who read of the suicide of Harry W. Hodson on April 3 remembered Harry Hodson who used to work at McKesson & Robbins' and was well known in this city and Brooklyn? They were one and the same. Hodson was a passenger on the Harlem railroad train which reaches White Plains about 1 o'clock in the morning. When the train had gone about a mile beyond Mt. Vernon the brakeman saw a man go out of the rear door of the last car and shortly afterward heard two shots. He looked out and saw the man was gone. The train was backed up and the body was found down an embankment. It was carried to White Plains and properly cared for. An inquiry came during the morning from Dr. Granger's sanitarium for weak-minded people at Brownsville about a nurse by the name of Hodson who was missing, and by this means as well as by papers in the suicide's pockets all the relatives of the deceased were apprised of his fate. "I knew Harry Hodson very well," said John Oehler, of McKesson & Robbins, "he worked for this firm at one time. About 1879 he was either head clerk or had full charge of Cyrus Pyle's drug store at the corner of Fulton and Pierpont streets, in Brooklyn. Several years later he became Brooklyn salesman for McKesson & Robbins. His work was very satisfactorily performed. We were much surprised one day when he told us he was going to leave this house. When asked for the reason Harry said that he had married a woman of some property who was, however, in poor health, and was compelled to go south. He had to go with her, of course. Since that time I have not heard much from him, but knew he was in charge of a drug store up in Oswego. When we knew him here he was a very agreeable gentleman." From other sources it is learned that the reason for the suicide was in all probability poor health. His wife had been dead some years, and after he had worked some years in Oswego he came here, finding employment as a nurse at the sanitarium.

The same good fellowship which has been shown since the first games in the tournament of the Wholesale Drug Trade-Bowling Association continues to be a marked feature of the agreeable Saturday afternoon gatherings of the teams and their friends. Now that the season is almost over, the interest in the battle for the prize has, of course, increased. Schemes for next year's tournament are many, which only go to show that everybody expects the boys will want to make it even more successful than the present series. There is a desire to secure better accommodations, and everybody admits that this is the first thing to be looked out for. The present alleys are not all they might be. The element of luck has entered very largely into the games, so that no bowling expert ought to judge by the scores in the games as to any particular man's ability. It is not stretching the truth to say that on better alleys the scores would have been 25 or 30 per cent better. Some members of the association thin, very favorably of the Germania alleys up near Houston street. The difference in time of getting to the Germania on account of the greater distance to be traveled would be more

than made up by the pleasure of bowling on alleys that are first-class. It is said that the Germania has the finest alleys in the city, so if the games are held there next year the scores ought to be a great deal better than those of this year's games. After this tournament is over, however, it will be time enough to think of what is going to be done months hence. These and other interesting matters will all come up for discussion and settlement when the association meets after the final game in the present series. The prizes will be awarded at the same time.

The game in Hohmann's alleys on Saturday, March 31, resulted in the first defeat of Whittall, Tatum & Co.'s team and two victories for the Dodge & Olcott five. The scores were as follows:

FIRST GAME.

WHITTALL, TATUM & CO.				
	S.	S.	H. Sc.	
Burgdorf	2	5	123
Lusk	0	8	106
Lester	2	3	142
Mannion	0	6	145
Tamlyn	2	3	142
Totals	7	16	671

DODGE & OLCOTT.

	S.	S.	H. Sc.	
Howe	1	5	154
Lusk	2	4	111
Euler	1	1	102
Martens	2	1	123
Ruddmann	3	6	124
Totals	9	17	725

SECOND GAME.

SEABURY & JOHNSON.				
	S.	S.	H. Sc.	
Benjamin	0	2	103
Dakin	3	3	141
Euler	3	1	92
De Zeller	3	1	62
Tremper	2	1	118
Totals	9	7	538

DODGE & OLCOTT.

	S.	S.	H. Sc.	
Howe	1	4	134
Lusk	0	3	113
Boze	2	5	157
Martens	2	5	134
Ruddman	2	5	151
Totals	5	19	689

The standing of the teams is as follows:

	W.	L.	H. S.	
Dodge & Olcott	4	1	725
Parke, Davis & Co.	4	1	751
Whittall, Tatum & Co.	3	2	671
McKesson & Robbins	2	2	822
Seabury & Johnson	1	3	641
C. G. Bacon & Co.	0	5	531

George J. Seabury has sent the following letter to Senator Voorhees in reply to the circulars sent out by the chairman of the Senate finance committee: "To the Hon. D. W. Voorhees, Chairman Finance Committee, United States Senate, Washington, D. C.: "My Dear Sir—No firm or corporation addressed by you will answer voluntarily many of the interrogatories you propounded in your circular. Even though you assume them that such was the procedure under the Walker and other tariff doctrinaires, they nevertheless will not expose their business any more than when you create an income tax and expect them to be truthful. Every importer knows full well that an inquisitorial committee will never receive facts. Ad valorem duties, pure and simple, have always brought to light under-valuations and disclosed dishonest practices. The honest importer has always been the victim, and so has been the government. "The true solution rests in specific duties. That policy gives at least a fair chance to importers and the government. Why should so much of our trade be laid on imported goods? Why not legislate for home industries and our home market and keep our profits circulated among the people instead of being hoarded by rubber baron manufacturers of Europe and their pauper labor? View the disaster that has already befallen our countrymen during the past six months under

the mere menace of the Wilson bill—not yet a law in this country, thank God! The Democratic party is always doing the wrong thing at the right time for its political opponents. Depend upon it, the more you combat the principles and policies that have always insured prosperity to the nation, the quicker the present administration will receive the censure of the people. Your legislation is neither practical nor patriotic. "We cannot expect much from politicians, college professors and theorists. Better leave your work to your successors, the Republican party. You Bourbons, Democrats never learn anything new nor forget anything old. The people will soon place the present administration where it belongs—to a dead past—and the sooner the so-called Democratic party is deposed the sooner the people will be restored to a healthy commercial and financial status. GEORGE J. SEABURY."

A. L. Cochran's store on Beaver street is open for business.

George A. Kelly, of Pittsburg, has been in the city this week.

Henry Asher has started a drug store on Broadway, Williamsburg.

S. Rosenstock has opened a drug store at the corner of Broome and Goerck streets.

Frederick B. Perry, the well known representative of Powers & Weightman, is in town.

Brent Good, of the Carter Medicine Co., has been in Montreal for a week visiting the company's factory.

Frederick Knauf has accepted a position with C. S. Erl, at Amsterdam avenue and Sixty-fifth street.

George W. Jarchow, class of '93, N. Y. C. P., has bought the store of Frank Gundlach, 538 Second avenue.

E. C. Ranney, of Delmar, N. J., is building a store on the beach, which he will occupy the coming season.

Martin J. Schmitt has bought the pharmacy of Curt W. Knappe at Carlstadt, N. J. Mr. Schmitt was one of the class of '91, N. Y. C. P.

Among other out-of-town drug trade men seen passing down Fulton street one day this week was James S. Robinson, of Memphis, Tenn.

Jeffrey L. Bauer, the far east agent of Whittall, Tatum & Co., has been in this city this week, but returns to New England in a few days.

Leo Morganstern, now located at the corner of Myrtle and Sumner avenues, Brooklyn, is going to try another corner of the same avenues.

William M. Davis, secretary of the Brooklyn Board of Pharmacy, has opened a drug store at the corner of Fulton street and Reade avenue, Brooklyn.

J. K. Brater is to open a store at the corner of Seventy-sixth street and Park avenue. He was formerly with Daggett & Ramsdell, on Fifth avenue.

Frank Gundlach has bought the drug store at the corner of Columbus avenue and 106th street. Mr. Gundlach was a member of the class of 1881, C. P. N. Y.

James E. Bartlett, of Detroit, has been in town for a few days. He is a cheerful, energetic young man, and his cheery manner makes him a welcome visitor everywhere.

Reports from the southern district of New Jersey show only one place, Atlantic City, where trade is booming at all. Complaining letters are coming in, from all the other towns.

A. M. Boney has rented the store at the corner of Thirty-eighth street and Broadway, under Abbey's Theater. He expects to open the store about May 7. His fountain is a Low Art Tile.

J. N. Hegeman & Co.'s store on Fifty-ninth street will be opened about the first of May.

Samuel Traugott has sold his store at 923 Third avenue to John Kremer and Herman Schmidt. The new firm will be known as Herman Schmidt & Co.

P. J. Noyes, manufacturing pharmacist of Lancaster, N. H., has been spending his vacation in this city seeing friends and picking up trade pointers.

Elijah Malloy, managing director of the Rosbach Mineral Water Co., Fifth avenue, sailed by the Lucania to-day for England, where he will consult with the British directors of the company.

Paul Monlun, manager of the New York office of Blanc & Cie, says the new perfume just put on the market by his house is the finest ever presented. It is called "Royal Violet" and is handsomely put up. Ill luck seems to follow T. E. Travers, of Fifty-fourth street and Second avenue. About three weeks ago he met with a painful accident in the drug house of Max Zeller, where he injured his kneecap by a fall. At last reports he was improving.

William H. Nichols, of the Nichols Chemical Company, of Brooklyn, has been elected first vice-president of the Manufacturers' Association of Kings and Queens Counties, notice of the formation of which was given in a recent issue of the Era.

Among the firms who have agreed to co-operate with the New York City branch of the Interstate Retail Druggists' League in securing signatures to the circular petition recently sent out are W. H. Schieffelin & Co., Lehn & Fink, and Tarrant & Co.

John W. Cox, of the Antikamnia Co., arrived in this city on Monday with his partner, Frank Ruf, they having had a first-class time on their three or four weeks' trip to Cuba. Mr. Ruf will spend a few days here visiting friends, and will then return to St. Louis.

William Wright, one of the most enterprising druggists of Atlantic City, has added many fine fixtures to his store, and has generally overhauled the shop, decorating liberally in white, purple and silver, and throwing out all his old cases. He has also put in a Low fountain.

Friends of H. Baskerville Mason, son of A. H. Mason, of Seabury & Johnson, will be glad to know that he is in splendid health and finds his position with Oppenheim, Sons & Co. as special representative very congenial. His home address is 14 Worship street, London, E. C.

The Fraser Tablet Triturate Manufacturing Company has a new issue of "Fraser's Notes" about ready to send out. The "Notes" have heretofore been sent out at irregular and infrequent intervals, but their favorable reception has led the firm to undertake their more frequent issue.

Friends of D. W. Wilson, of Chicago, who used to be in business here, will be pleased to hear that he is doing well out in that city. He was formerly with Gale & Blocki. Now he has opened a store in the Marshall Field building, where he will do a strictly prescription business in connection with the sale of physicians' supplies.

The uncertainty over the season's receipts of cod liver oil still continues. The fishing season generally ends at Easter, but it has been learned that the fish will go on up to the 1st of May. The

reason for this extension of a month is that the catch has been small and the livers are small, so that the crop is doubly reduced.

Frank H. Lalor, a druggist of Trenton, N. J., has been nominated for postmaster of Trenton, and will probably be confirmed. There has been quite a fight over that postmastership, and Mr. Lalor is the compromise candidate, the other aspirants having been sponsored by the New Jersey Senators. Mr. Lalor is a member of the New Jersey Pharmaceutical Association.

The Fulton Club, of 80 Fulton street, to which several gentlemen in the drug trade belong, has these new officers: President, George P. Benjamin; vice-president, Robert E. Bonner; secretary, Benjamin T. Fairchild; treasurer, Alexander Gilbert; directors, W. W. Farmer, John D. Fraser and Augustus M. Brush. The finances of the club are in good condition.

The Alden Pharmacy, at the corner of 123d street and Seventh avenue, does only a prescription business, and M. Sax, who is at the head of the concern, says that trade is very good, and that he believes that his way of conducting a drug store is the right one. Mr. Sax has had thirty-four years' experience in the business. He has a very handsome store, the premises having been completely refurbished since they were occupied by druggist Winter.

M. W. Millsbaugh has taken the position of traveling salesman for McKesson & Robbins, made vacant by the resignation of Nelson P. Snow. Mr. Millsbaugh was a member of the class of '89, College of Pharmacy of New York. Mr. Snow will try his fortune in the west. He was formerly connected with the Sagar Co. at Duluth, to whose employ he returns. He has a wide acquaintance, and as he is an energetic young man, he will undoubtedly do well in his new work.

The druggists who belong to Amalli Lodge, Knights of St. John and Malta, seem to be coming to the front in good style. T. B. Green, druggist at the corner of 15th street and Seventh avenue, has been elected eminent commander; Alonzo Dargan, city salesman for Tarrant & Co., lieutenant commander; Charles Bruhl, of Lehn & Fink, chancellor, and Warren A. Green, of Lehn & Fink, marshal. They, with the other officers, were installed on the evening of April 3.

Fassett & Messaros have bought out the drug store at the corner of 123d street and Lenox avenue, formerly known as the Lenox Pharmacy. William Wilts was the proprietor. The store is being completely refurbished both in stock and fixtures, and will be made a model uptown pharmacy. Mr. Fassett is well known in the drug trade, having formerly been with Caswell, Massey & Co. and with the Hegeman Co. He is going to make soda water one of the drawing cards of his new store, has secured a Low fountain.

R. W. Walker, New York agent for James W. Tufts, has furnished new fountains for C. F. Webster, Sixty-fourth street and Lexington avenue; G. M. Burr, Northport, L. I.; Paul Schissel, 1431 Broadway, Brooklyn, and R. G. Eccles, 111 Smith street, Brooklyn. The statement in these columns that fountains for A. G. Smith, Greenville, N. Y.; H. H. Howgate, Highland, N. Y.; C. R. Lush, Hempstead, N. Y., and C. C. Watkins, 235 Third avenue,

city, had been refitted was an error. The fountains were all new ones, placed in refitted stores.

Quite a jolly little dinner party was that given at the Arena on Thirty-first street on Friday evening last by John W. Cox. Among those present were Brent Good, of the Carter Medicine Co.; John M. Peters, of the Fraser Tablet-Triturate Co.; Joseph A. Toy, of the Carter Medicine Co.; Thomas P. Cook, of the New York Quinine & Chemical Works, and Frank Ruf. After the dinner the party adjourned to Palmer's Theater, made themselves comfortable in a box and saw John Drew's good acting in "The Butterflies."

The Pharmaceutical Graduates' Bowling Club, organized some ten years ago and to which most of the enterprising young men in the trade at that period belonged, was buried a few weeks ago. The cause of death was the fact that most of the members have either embarked on the sea of matrimony or in business for themselves, and consequently have little or no time to devote to the club. For the past five years this club was noted for its enjoyable annual ball, which was always a great success. At least 300 persons attended these functions and most of the men present were druggists. The death of so popular an organization is to be regretted.

Another restaurant besides the "Century," which seems to attract men in the drug trade, is that at the corner of Fulton and Dutch streets, very near the new home of the Era. It is a little place down in the basement, and has been well patronized for thirty years. At noon one can find there such men as Mr. Kolb, of Schering & Glatz; Mr. Phair, of R. M. Phair & Co.; Charles Weiss and William Timken, of McKesson & Robbins; M. J. Breitenbach, W. W. Dixon, of E. R. Squibb & Sons, and many others. There are generally a dozen or fifteen men in the trade gathered about a long table discussing lunch and "shop." The plans for forming the present highly successful bowling tournament were first talked of at this little restaurant.

Apocryph of the squib in these columns a few weeks ago about the great expense some druggists were going to in the matter of store fixtures, one druggist says: "Next to having a sub-station of the post-office in your store, the best drawing card is a bright, attractive shop. Of course I mean other things being equal. For instance, neither a sub-station, a nice store or anything else will make people trade at a shop whose prices are higher than at another one, two or three blocks away. Given two stores near together, same prices, same courtesy, same care in compounding, the best looking shop will get the bulk of the trade. Druggists don't spend money foolishly in fitting up their stores. They know that they have got to do it, especially if there is any competition."

Now that Lazell, Dalley & Co.'s exhibit of fine cut glass bottles is no more to be seen at Hegeman's store at Broadway and Thirtieth street, the occupants of the store have lost lots of fun. It used to be a very common thing for a crowd to stand outside the window during the evening looking at the exhibit. The young lady at the desk would turn the electric current off and on, but the spectators could not see how it

was done. After expressing their wonder they would try to find out where the light came from and would enter the store to ask questions about the matter. It was a very simple arrangement. Each of the dozen or so bottles rested over a hole in the counter, and below the holes were the electric lights. Turning on the current caused the light to shoot up into the bottles, making them shine and sparkle like thousands of gems. The mounting of the exhibit was in perfect harmony with the character of the articles, and even now passers turn and look at the window as if they expected to see the show.

NEW YORK COLLEGE OF PHARMACY.

The last drug exhibit of the senior class was given to-day.

Nux vomica and phosphorus are much in demand just at present. Ask any of the seniors if this isn't so.

A reunion dinner of the class of '93 will be held at Morelo's, Fifth avenue and Twenty-ninth street, on April 24.

H. W. Atwood is not yet able to get out of the house. He has had quite a siege of sickness, but everybody hopes to see him soon.

The seniors will have their class dinner on Monday, April 23, at Clarke's, on Twenty-third street. The professors will attend as guests of the class.

At a special meeting of the college held last Tuesday Dr. George G. Needham was chosen to take the place of the late Dr. Harrison on the Board of Pharmacy.

Pharmaceutical examinations (laboratory) for the senior class begin on Monday next, section 1 taking its turn on that day and section 2 on the following Wednesday.

The Alumni Association and the executive board will hold a meeting on Wednesday evening, April 11. Dr. James K. Crook will deliver a lecture on "First Aids to the Injured."

Oral examinations have been coming along one after the other since the last Monday in March. The questions were good, fair ones, but some of the boys had to wipe the perspiration off their foreheads before they got through.

Dr. Coblenz is a great favorite with the seniors. His last pharmacy lecture to them was given on Wednesday, and the young men showed by their applause what they think of this popular instructor.

In order to interest the students in the Alumni Journal the publishers of that excellent monthly have decided to reduce the annual subscription price for students only from \$1 to 50 cents. The Journal should not lack subscribers after that more than liberal offer.

The seniors did not succeed in having their class picture taken in front of the new building. That was, of course, a disappointment, but the class picture of 1894 has at least one value outside of its intrinsic worth. It is the last class picture taken in front of the old building, and as such will be treasured by the classes that are to come as well as the one that soon bids good-bye to the ancient structure. The picture of the present senior class was taken last Friday, and the proofs show that a first-class (in more than one sense) photograph was the result.

BOSTON.

Boston, April 9.—They are discussing at the State House the Norwegian system of selling liquor—a bill providing for the adoption of that system here being under consideration; and this has afforded the impregnable and always suspicious Henry H. Faxon, of Quincy, a chance to get in a bling at the druggists. Mr. Faxon said the other day: "The only virtue in the bill is the provision that retail druggists and apothecaries shall only sell liquor on presentation of a physicians' prescription. What good is that after all? You might as well try to regulate a whirlwind as an irresponsible, rascally druggist." Now, he probably fancies that such hollow talk is a sound argument. If the friends of the bill are depending upon such support as this for its passage, the measure will probably never become a law here.

Biddeford, Me., has had plenty of food for gossip of late, a suit for divorce having been begun by Dr. Henry Reny, proprietor of the Marble block drug store, who alleges that his wife has made a systematic attempt to end his life by administering poison in his food. Dr. Reny has been thrice married. His last marriage was to a Waterville young woman three years ago. By his first and second wives he had three children. Shortly after his last marriage he left his drug store in charge of a nephew, George G. Bellevue, and went to Somersworth, N. H., and began the practice of medicine. Last fall the nephew dying, Dr. Reny returned to Biddeford and resumed charge of the drug store. His friends there had received no intimation of any trouble between him and his young wife, but since the doctor has been living here it has been common report that discord reigned in his household. The wife was charged with being cruel to his children. Dr. Reny has frequently acknowledged to his intimate friends that he feared his wife. She became jealous of him, and frequently accused him of unfaithfulness. A short time ago Dr. Reny's health began to fail, his symptoms being those of arsenical poisoning. He had a short time before taken home six ounces of a solution containing a large percentage of arsenic. He had used less than half an ounce of it, but when he looked for the bottle he found it nearly empty. At the advice of his physicians he sent to Prof. Robinson, of Bowdoin College, a quantity of his secretions for analysis. The analysis showed distinct traces of arsenic. As soon as the chemist's report was received, Dr. Reny consulted counsel with a view to seeking a divorce, and made preparation for a hasty leave taking of his home. He took up a temporary abode at a friend's home, and sent two officers to his house to get his children. Mrs. Reny was not at home. Her adopted daughter let the officers in and they took the children in charge and carried them to a temporary place of abode. When the officer had an expressman went to the house to carry off the furniture. Mrs. Reny locked the doors and defied them to enter her home. City Marshal Harmon has threatened to arrest Mrs. Reny on a criminal charge, but the husband has pleaded with the marshal to defer his action. It is claimed that the children, especially the eldest, show signs of abuse. Dr. Reny's physical condition is said to be much worse than he realizes. It is the opinion of some that he can

never recover from the effects of the poison. Mrs. Reny denies that she ever administered poison to her husband. It is said that when the case comes to trial an attempt will be made to show that the traces of arsenic found by the chemist came from medicines administered by her husband himself or his attending physician, and that she knew nothing of the solution of arsenic in the house. Her counsel claims that the serious charge against her is but the outcome of a plot perpetrated by her husband and his relatives as a means of bridling about his separation from her.

A report comes from St. John, N. B., that Chesley, the druggist of Bostonville, Mass., who disappeared from that place with Mrs. Munz, the wife of the man with whom he boarded, has bobbed up in St. John. Now Chesley has announced himself as "Paul Ivereig," and the woman as his wife, and said that together they intend circling the globe, something after the "Paul Jones" fashion. The local papers boomed the pair for days, and one night there were several hundred people in a rink to see them start. Chesley delivered an address, in which he said: "Recently while sitting in a club room in New York discussing Paul Jones, some one wagged that I could not accomplish a feat like the one he had attempted. I accepted the wager, and agreed also, to have my wife accompany me. In one year from to-night we expect to be in this rink with \$5,000 in our pockets, plenty of clothes and unbounded fame. The pair then retired to a private room to disrobe. In a room adjoining 75 people were allowed to stand for 5 cents each. Autographs were disposed of at small sums each, and with the money collected, about \$10, Chesley purchased burlap, a needle and two pairs of women's cheap stockings. Clad in garments of burlap, which the woman sewed together with twine, the couple reappeared before the audience, and made more money by selling photographs and autographs. It is thought that the proposed tour is a bit of strategy to enable the runaways to get out of the country.

Among those who are making a vigorous remonstrance against the proposed subway in Boston are Smith, Benedict & Co., the wholesale druggists, who very pointedly say: "Our objections are as follows: First, we believe that its construction will cost millions in excess of the present estimate. Second, the street being opened from curb to curb, leaving no opportunity for teams to bring or carry freight, will cause all traffic on the street to be practically stopped, entailing upon all merchants on said street a loss which cannot be estimated, as it will, to all intent and purposes, suspend for the time any and all business. Third, the fact that all this expenditure of millions will not bring about what we are now seeking, viz., rapid transit, but on the contrary be a waste of the public funds, causing the taxpayers to seriously consider whether we are justified in committing our city to this costly scheme, which, provided it should be completed after years of delay and expense, would then be of little practical benefit to the public." Another drug house, that of Francis T. Church & Co., writes: "According to the admissions of the subway commission this Tremont street subway would be but a stepping stone to a system of tunnels which would honeycomb the found-

dations of our city, and we are fully convinced that many millions of dollars would be foolishly wasted, and that the traveling public who are now clamoring for rapid transit would find nothing but grievous disappointment and increased taxation." These expressions of opinion show that the Boston druggists are wide awake when great questions come up, and know how to state their views in a way that carries weight.

Experiments in tobacco growing in Massachusetts are now being made by experts, and upon the results of these experiments depend largely the future prosperity of this industry, so far as growing fine tobacco in New England is concerned. In the winter of '92 there was organized in Windsor the Connecticut Tobacco Experiment Company, for the purpose of carrying on the business of an experiment in the culture and care of tobacco, the same to be conducted and carried on in connection with and under the supervision of the Connecticut agricultural experiment station. The growers in Massachusetts believe that fine tobacco can be grown in this state, and await the results of the experts with much interest. Questions as to the effects of different fertilizers, climatic conditions and soil and their relations to each other are now receiving attention from the Massachusetts Tobacco Growers' Association. The preparing of the fertilizers is under the direction of Prof. Goessmann, of the experiment station, and the composition is unknown by the grower, or those who are to judge of the relative quality of the different plats. It is proposed to have three or more pieces in different towns, each piece to be divided in ten plats and each plat to be fertilized with a different formula. The area upon which good wrapper leaf such as the trade demands can be grown is limited, and is practically confined to the Connecticut and Housatonic valleys, and even within these limits the production has been far from uniform in color and quality, owing without doubt to the fact that in many instances a farmer has tried to grow tobacco because his neighbors did, not taking into consideration, perhaps, the fact that the soil upon his farm was very different from his neighbor's.

William J. Cutler died at his home, 388 Beacon street, on April 1. He was one of the oldest wholesale druggists in Boston, having been actively engaged in the business for sixty years up to the time of his retirement on account of declining health three years ago, at the age of 76. He came to Boston at the age of 12 years, founding in 1830 the wholesale drug house of Read & Cutler, which was afterwards changed to Cutler Bros. & Co., Mr. Cutler being the senior member of the firm. The house has long been one of the leading houses of its kind in Boston, and has headquarters on Broad street. Mr. Cutler was confided so closely to his main business that he found little time for other connections. He was one of the original directors of the First National Bank of Boston, and also one of the first members of the Boston Society of the New Jerusalem on Bowdoin street, taking always great satisfaction in the growth of the society. He had a wife and one son, Edward H. Cutler, of the firm of Noyes Bros. & Cutler, of St. Paul, the leading wholesale drug firm of the Northwest.

Weymouth druggists are to have no liquor licenses this year.

James W. Tufts has returned from Florida.

Bernard D. Sullivan, druggist, Dover, N. H., has failed.

Henry Stoll, formerly a Boston druggist, has lost his wife, who was an actress.

Clark Nutter's drug store at Somersworth, N. H., has been damaged slightly by fire.

Six druggists in New Britain, Conn., have been prosecuted for alleged violation of the liquor law.

Lombard & Boynton have bought out Pollard's drug store in Magoun square, North Somerville.

It is stated that the drug store of the late Dr. Barden, of South Boston, is to pass into new hands.

A new drug store has been opened in Lowell by M. L. Proulx. The Low Co. supplied the fountain.

A discharge from insolvency has been refused in the case of James A. R. Underwood, a Boston druggist.

Thomas D. Q. Perry, druggist, 625 Shawmut avenue, has failed. The liabilities amount to \$4,067, and the assets are slight.

W. E. Luscomb, of Salem, has closed one of his drug stores and consolidated two in his fine place in Town House square.

Edgar D. Chase, who, it is alleged, swindled H. C. Hall, a Waltham druggist, by means of forged checks, has been arrested.

Charles P. de Langille has bought Fuller's drug store on Market street, Lynn. In fitting it up he has put in a Tufts fountain.

C. A. Bass, who was in business in Cambridge for a long time, has bought the Oxnard pharmacy on Main street, Charlestown.

Dr. George Rice, a druggist, lost \$2,000 by a fire in Nohscott block, Framingham, on March 28. Fortunately he had his property insured.

F. M. Frost, who already had a drug store in Hyde Park, has opened another in Roslindale. Mr. Frost has put in a Low fountain.

William A. Blossom, who has just been elected ruler of the Elks of this city, was originally a drug clerk. At present he is a court constable.

A. Markwick, Jr., & Co., of Hartford, Conn., having sold out to the Park Drug Co., have bought the drug store of W. R. Chaffee in that city.

F. E. Gilbert has opened his third drug store in Providence. It is at the corner of Charles and Nichols streets, and contains a Low fountain.

Lothrop & Plnkham, of Dover, N. H., who have two drug stores there, are erecting a fine building, into which one of the stores will be moved.

On account of the widening of Harrison avenue, the drug store on the east side, at the corner of Beach street, will be demolished. It is a landmark.

There was a fire on the morning of April 3 in the house No. 5 Dover street, where Frank Smith, a druggist, had a room. Like other lodgers, Mr. Smith was a loser by the fire. One man in the building lost his life.

There has never been a drug store in Castine, Me., till now. W. A. Walker is the enterprising man who has established it, and he expects to do well in the summer, at least. His handsome fountain, from the Lows, will undoubtedly prove an attraction for vacation visitors.

There has been considerable complaint by several of the physicians in South Boston of the neglect of the apothecaries to respond to a ring of the night bell.

A discharge from insolvency has been granted Frank N. Littlefield (Willard Remedy Co.), 175 Tremont street. The case of Wm. R. Webster, the Roxbury druggist, comes up again in this court on April 27.

The members of the W. C. T. U. of Malden have voted to empower their committees representing the union to sign the petition of the Prohibition Club, praying that licenses be not granted to the druggists.

Herbert A. Greeley, proprietor of a drug store on Elm street, Somerville, was before the court recently, charged with keeping and exposing for sale intoxicating liquors. Being fined \$75, he appealed, and was held in the sum of \$100.

It is a fact of some interest that three of the chief officers of the Massachusetts Pharmaceutical Association—President J. Allen Rice, of Milford, Treasurer T. B. Nichols, of Salem, and Secretary M. L. H. Leavitt, of Boston—all use Low fountains.

Thieves entered the drug store of W. T. Brown on North Main street, Randolph, and carried away a quantity of cigars and tobacco, beside sundry other articles. The entrance was effected by breaking a square of glass in the front door.

The selectmen of Revere have voted not to grant any druggists' licenses this year, thus heading off any petitions. There are but three druggists in the town, and they had not petitioned for licenses when the board passed the vote shutting them off.

Here's a chance for some good druggist. Thomas H. Hall, hatter, 702 Main street, Worcester, has a good business block and desires to fit up the corner store for a druggist; "some one with a little cash and a lot of energy," he says. He is willing to give the man a start.

G. W. Cobb, of East Boston, one of the most active and progressive druggists here, has been canvassing Western Massachusetts in the interests of the retail trade. An association has just been organized in Hampden County, with L. R. Davis, of Northampton, as president.

Among the druggists who have recently bought apparatus from Tufts—some of it quite expensive—there are Dr. John McDonald, South Boston, G. C. Sweet & Co., Jamaica Plain, Samuel M. Moore, Danvers, J. P. Roller & Co., Salem, J. Fred Gilson and C. E. Walsh, Providence.

A new firm has been formed to look after the interests of J. W. Tufts in Chicago. It consists of Burton Adams, a brother of the late W. P. Adams, who long represented Mr. Tufts, and W. P. Niles, an ex-druggist from Belleville, Ont., who has been with Mr. Tufts for twenty years.

A tenant has been found for the drug store which was fitted up in handsome style in Rice's new block on Boylston street, near Massachusetts avenue, the proprietor of the store at the corner of Commonwealth and Massachusetts avenues having decided to move into the new quarters.

Some of the most "catchy" circulars seen in a long time are those prepared by Mr. John Macksey and issued by J. W. Tufts. All are carefully prepared and

some are handsomely illustrated. They are exactly what druggists want, for they contain much valuable information about soda fountains.

Walter A. Demeritt, druggist, No. 270 Columbus avenue, has purchased a new frame dwelling-house, numbered 68 Osborn road, Brookline, near Tubcock street, and will take up his residence there. The house is a twelve-room structure and is equipped with all modern improvements. The price is understood to have been about \$8,500.

The first meeting of the Cambridge and Somerville Druggists' Association since its organization was held on March 29, 11 Raymond hall, Cambridgeport, about 90 members being present. The principal business transacted was the beginning of arrangements for a new schedule of prices for patent medicines. Several articles were placed on the new list.

The Bracon police on March 21 made the biggest seizure of liquor ever known in that city. J. E. O'Connor's drug store and grocery at Centreville was raided and 200 barrels of cider, which was stored in the cellar, was seized. In the Police Court, just prior to the raid, O'Connor was sentenced to three months' imprisonment and to pay a fine of \$100. He appealed.

A lease for ten years has been executed by the Dolber-Goodyale Company, manufacturers of Mellin's Food, with the owners of the new six-story mercantile building, which has just been completed on the corner of Atlantic avenue and India street. The firm will take immediate possession. This building is so situated on the corner as to have light on three sides. It fronts 57 feet on the avenue, and 90 feet on India street, and is one of the best arranged buildings for business in that part of the city.

Following are the summaries of some of the corporation returns just filed at the State House: Angler Chemical Co., of Newton; assets, machinery \$300, cash and debts receivable \$18,467, manufactures and merchandise \$9,891; total, \$28,659; liabilities, capital stock \$10,000, debts \$18,213, profit and loss \$456; total \$28,669. Chemical Paper Co., of Holyoke; assets, buildings \$380,000, cash and debts receivable \$91,192, manufactures and merchandise \$116,064, trustee account \$90,390; total \$647,556; liabilities, capital stock \$250,000, debts \$287,872, profit and loss \$19,684, reserve for depreciation, \$90,000; total, \$647,556.

The Alumni Association of the Massachusetts College of Pharmacy gave a reception the other evening in the college building on St. Botolph street to the members of this year's graduating class. There was a large attendance of the members of the association and of the '94 men, and almost every gentleman was accompanied by a lady. The evening was passed in social conversation and in listening to a musical entertainment, which had been provided by the officers of the association. There was orchestral music under the direction of Mr. Bert Caswell, of Charlestown, and singing by Miss Alice Clark, of Wellesley, and Mrs. and Miss Denton. Among those present were Prof. Scoville, Mr. Jordan, of the milk inspection office, and his wife, and the president, Mr. J. Allen Talley, and wife, who have just returned to Boston from their wedding trip. A handsome clock was presented to Mr. and Mrs. Talley.

PHILADELPHIA.

Philadelphia, April 9. For a number of years William Wilson was employed by Smith, Kline & French Co., and until recently he was considered one of their trusted employes, and it was only by accident that his irregularities were discovered. A few nights ago Wilson came out of the store with a can which contained alcohol. He boarded one of the cars going up town, and it seemed that he recognized the detective, for he quickly jumped off the car, and showed what he could do in the way of sprinting.

The next morning he confessed to having robbed the firm and implicated David Bentley, who keeps the drug store at 829 Elm street, Camden. Bentley was immediately arrested on the charge of receiving stolen goods. He at first denied that the goods were in his place and when they were recovered on a search warrant he declared that he did not know that they had been stolen by Wilson. Both of the accused were held in \$1,000 bail. Mr. Kline said that the peculations had been going on for over two years. At one time both of the accused were employed in the same department.

An instance in which a doctor's directions about a prescription were disregarded, with fatal effect, is reported from Stratlington, Va. Robert C. Herman, of that town, became ill on April 4, and a four-ounce mixture containing strychnine and atropine salts was prepared for him with instructions to take a teaspoonful after each meal. Mr. Herman was impatient to get well and drank half of the contents of the bottle. Soon afterwards he became violently ill. The doctor was not told of his patient's rash action, and an injection of morphine and atropine was given. Then the man fell asleep; in the morning he was dead, and his wife awoke with a corpse at her side. The coroner's jury exonerated the doctor.

The election of Professor Henry G. Trimble to the editorship of the American Journal of Pharmacy is felt to be a guarantee for the future success and development of that publication. The Journal was first published in 1825, and until 1829, appeared but once a year, after which time it was a more frequent visitor in pharmaceutical circles. In 1835 a new series under its present title was commenced. Professor R. E. Griffith, who occupied the chair of materia medica, continuing as editor, in 1838 Professor Robert Bridges was editor, with Dr. Joseph Carson as his associate. Ten years later Professor Bridges withdrew and William Proctor, Jr., took his place. The late Professor John M. Maisch became editor in 1871 and held that position up to the time of his death last year. Not wishing to be too hasty in electing a successor for such an important trust, the college authorities waited several months before making a decision. Professor Trimble was not a candidate for the place, which involves much painstaking work, but his associates desiring to secure an editor whose reputation as a pharmacist and scientist would be of value to the Journal, he was finally induced to withdraw his objections.

R. Fideau, a representative of a large New York chemical house, has been in this city for over a week. His business has carried him to all parts of South America, to the West Indies and to Mexico. In speaking of the commercial inter-

ests he said: "Commercial interests in Brazil will be unsettled for a long time, and supply houses will not be in a hurry to solicit trade there, as no one knows to whom credit should be given. Most of the other South American countries are prospering. We still have to accept bills of exchange on London when dealing with the South American people. In Mexico they want to pay us in silver, but when we get a Mexican silver dollar across the line into the United States we find we can only get 65 cents for it, so we accept exchange on London. Business is improving in this country and I expect to see a boom in 1895. If the Wilson bill is passed the reciprocal treaties with some of the South American countries will not be abrogated. Those treaties have been of great advantage to the United States manufacturers. Before they were made we could not compete with French and English exporters, because we paid higher wages than Europeans, but when the duties on imports into the Latin countries were made less upon goods shipped from the United States than from Europe, our goods found a ready market. The treaties were made for a period of years, and I think they will stand until that period expires."

The Philadelphia College of Pharmacy has been the recipient of a splendid gift which will be of greatest interest to its students for generations to come. The famous herbarium collected and preserved by the late Isaac C. Martindale, one of this country's most eminent scientists, was presented to the institution on Friday, April 3, at a meeting of the board of trustees. It was purchased at a recent sale ordered by the executors of the Martindale estate by the Smith, Kline & French Co. and Mr. Howard B. French. This collection of plants and ferns was formally presented at the trustees' meeting, Mr. French making the donation speech. Chairman T. Morris Perot responded warmly in appreciation of the generosity of the donors, and he was followed in like vein by Mr. Charles Bullock, president of the college, and Mr. J. W. England and G. M. Beringer. A motion was adopted to the effect that three sets of engrossed resolutions be prepared, one for each of the donors and the third to be hung in the college library, thanking the gentlemen and setting forth the value of the gift. The collection will be kept apart from the herbarium already in possession of the college and will be known as the "Martindale Herbarium." It is the largest systematic herbarium in the United States, containing upward of 200,000 plants and ferns which have been secured from all parts of the globe. Expert botanists have classified and named the specimens. They have all been fastened on boards and enclosed in handsome walnut cases. The herbarium represents the life-work of Isaac C. Martindale. Years of untiring research and \$10,000 in money were expended to secure rare plants and complete the families of the vegetable kingdom. Many leading botanists and writers on scientific subjects considered it a high privilege to be allowed to obtain data from the Martindale herbarium. Professor Britton, of Columbia College, largely used it in compiling the flora of New Jersey in the Geological Survey. The herbarium is received at a very appropriate time—just when the facility is able to place it to such advantage in the newly furnished museum, that its

admirable features may be generally appreciated. All the students and friends of the college feel grateful towards the donors for their generosity and the practical shape it assumed.

The spring course in analytical chemistry under direction of Professor Trimble was formed on April 2 with an increased number of students, many of whom are pursuing advanced lines of research.

Haentzler's drug store at the corner of Third and Poplar streets has been sold to Harry Lee Barber.

Lehman R. Phillips has purchased the drug store of B. F. Creighton, at Third street and Washington avenue.

D. E. Branson, a representative for Johnson & Johnson, also for the Royal Malt Extract Company, is in this city.

J. H. Vogelbach has purchased the drug store formerly conducted by Dr. J. O. Everhard, Fifth and Cumberland streets.

While most of the drug houses and those connected with the drug trade report bad business, French, Cave & Co. continue to have plenty of orders, the business up to date showing an increase over the same period last year of 25 per cent.

George L. Geiger & Co. have bought out the store of C. Austin Mille, at Broad and Stevens streets, Camden, N. J. Mr. Geiger was formerly with Robert Shoemaker & Co., and was also interested in the drug store at Germantown avenue and Cambria street, trading under the name of Corley & Geiger.

Monroe P. Lind, of Schandeln & Lind, has been spending a week with Baltimore and Washington druggists. Notwithstanding the "calamity howlers" who abound in this city, and in whose opinion no prosperity can be expected during Democratic misrule, Mr. Lind succeeded in placing "Garwood's" new odors with nearly every firm he called upon.

On March 28 the body of a young man was found in a box car at Twelfth and Federal streets, Camden, and a few days later it was identified as Carl Weil, a drug clerk, 17 years old. He disappeared from his boarding house on March 25, and, it is thought, while temporarily insane, wandered to Camden, and lay down in the car, in which he froze to death. The body was taken to Baltimore for interment.

The famous "Midway Plaisance" of Bullock & Crenshaw, which has created considerable attention since its erection, has been dissected and its bones scattered to the four points of the store. The "Midway" was nothing more or less than a conglomeration of samples of sundries kept by the firm, and as they decided some time ago to go out of this kind of business they were selling such goods below the regular retail price.

Dr. Joseph H. Schenck has been recently afflicted with more than an ordinary share of trouble. On March 22 he received a telegram announcing that his son, Joseph H., Jr., was sick in Pittsburg, whither he immediately went and found his son dangerously sick in the hospital. He telegraphed for his wife to come on, which she did, and while they both were away their other son, Walter, was hurt by a heavy weight falling on him, and he was removed to the Pennsylvania Hospital. He was severely injured. Joseph, Jr., has a severe attack of typhoid fever.

CHICAGO.

Chicago, April 8.—Wacher & Dietz, Lake avenue and Cable Court, have dissolved partnership in their World's Fair store, by dividing their stock and selling their fixtures and lease to S. E. Hawley, the owner of the building. This was one of the most attractive stores during the fair and may soon be opened again under a new proprietor.

Silver Pharmacy Co., Chicago, Incorporated for \$8,000.

Charles H. Achelpohl, druggist, is succeeded by A. H. Hond.

C. J. Froning, druggist in Freeport, Ill., is reported to have sold out.

O. C. Kundson, of Yorkville, Ill., is succeeded by Kundson & Hallock.

John F. Carnegie has returned from his western trip, much improved in health.

Quincy, Ill. Sommer, Lynds & Co. now style themselves "Aldo Sommer Drug Co."

Thomas Burton, one of Morrison, Plummer & Co.'s representatives, is now here.

"Al." Hoffman, of Peter Van Schaack & Sons, reports trade in the country very good.

F. F. and James Wakefield have been closed on confessed judgments amounting to \$44.

Mr. Clark, of Clark & Barker, Rochelle, Illinois, has been in the city visiting friends.

Julius Mayr's pharmacy, 128 West Lake street, has been bought and is now occupied by Mr. Giddings.

Representative Ed. Hoff, of New York, w.... his glib tongue, reports immense sales in his special line.

L. Jungk, of Fifty-first and Halstead streets, is reported to have taken a Mr. Brill as partner in his business.

George Palm, city shipping clerk of Fuller & Fuller Co., was married on March 29 to Miss Josephine Rhoeber.

A. C. A. Foot, Fort Atkinson, Wisconsin, has been in the city visiting his many drug friends, and is looking remarkably well.

Ed. L. Scholtz, from Denver, has paid Morrison, Plummer & Co. a visit, and reports a steady and very firm business in Denver.

Franciscan Herb Medicine Co. has been licensed in this state and located in Chicago. Incorporated, capital stock of \$100,000.

Harry Graft has accepted a position with H. J. M. Schroeter, of 425 State street. Harry comes from the World's Fair district.

R. E. Rhode, of the North Side, is soliciting the drug trade for his specialties, offering elaborate show cards for inducements.

The Paris green combine announces the appearance of their schedule of prices for the coming season April 20th, for all standard brands.

George H. Owen, of the Unity Building, has sent out a circular offering to sell retail druggists postage stamps in \$50 lots at 2 per cent discount.

Mrs. A. E. Ebert is still in a helpless condition, it being necessary to administer ether each day for the dressing of her ulcers, now of long duration.

J. R. Shean, of the stock yards district, is now doing service in behalf of the school board. His brother is in charge of the store during Mr. S.'s absence.

Theo. C. Koessel is now in the employ of John Dietz, corner of State and Forty-fifth streets.

Mr. Gallbrith, of Robert Stevenson & Co., is now getting around an crutches at his home in Englewood.

Messrs. Well & Hall, of Elgin, Ill., have been represented in Chicago the last week by Mr. Hall—buying goods.

J. S. Link, of No. 649 West Twenty-first street, corner Paulina, is successor to Otto Coltzan, formerly Coltzan & Bat.

Professor Hugo W. C. Martin is still longing for a prominent corner down town store into which to move his drug stock.

Francis H. Tuthill, city bookkeeper for Morrison, Plummer & Co., is confined to his home at Austin, Ill., with inflammatory rheumatism.

Harry F. Krueger, Fifty-sixth and Jefferson avenue, is the new proprietor of the Jackson Park Pharmacy, formerly owned by Oscar F. Schmidt & Co.

A. J. Welsh's Morgan Park drug store was considerably damaged by fire and water March 22. It is not known yet whether Mr. Welsh will resume business.

Mr. German, of Lord, Owen & Company, seems very much enthused over the large increase in their cigar business, some of their brands having become quite popular.

Fred List, the druggist, supposed to have died from heart disease, was found by coroner's jury to have died from morphia. His store has already changed hands.

Otto Coltzan is now in his new store room opposite the old corner. With this move ends the Triangle Pharmacy, it having passed from a triangle to a square.

Francis H. Tuthill is again at his post of duty in Morrison, Plummer & Co.'s office, after his attack of inflammatory rheumatism, which has yet quite a hold on him.

Rausch Brothers, Cottage Grove avenue and Oakland boulevard, are having a Mosaic floor put in their store, also new paper and other fine improvements, with ceiling to match.

Dr. T. J. Baird, Wyoming, Iowa, is in the city replenishing his stock, which was partly destroyed by fire. Mr. Fitzgerald, of Morrison, Plummer & Co., has the doctor in charge.

L. D'Adouck Harris, the cut rate druggist at Grand Crossing, Ill., has been closed up by his creditors, and he has since left the city, his whereabouts being at present unknown.

W. W. Swearingen and wife have left the city for a visit to friends at Indianapolis and Terre Haute, Ind., and Decatur, Ill., expecting to be gone about ten days or a fortnight.

Charles L. Feldkamp, owner of two North Side drug stores, has failed, confessing judgments to the amount of \$5,226. This is a great surprise to some of his drug acquaintances.

The base ball team of Morrison, Plummer & Co. have a good deal of Anson's spring song "What I Will Do!" They promise to keep up with their past record and surpass it if possible.

C. W. Horton, night death watch of the county jail, an ex-druggist, formerly in the employ of T. N. Jamieson, was called upon to help execute the ex-druggist—Painter. He is now watching in the "wee hours" over "Assassin" Prendergast.

Allandra Pharmacy, conducted by A. G. Winkler, proprietor, has been making an elaborate display of the Crown Perfumery Company's extracts, soaps and other toilet articles.

Mr. Taft, city salesman of Sharp & Bohme, who is at present working for the interests of the firm among physicians of this city, is reported soon to go on the road. Mr. Powers is his successor in the city.

There is soon to be a grand ball at Brand's hall, under the auspices of the "buying boys" of the different wholesale drug houses of Chicago, and they have extended a cordial invitation to all drug friends.

G. H. Creik has purchased the store of George Umstead, corner Hoyne avenue and Harrison street. Mr. Creik was formerly manager of the Morgan Park store, and also at one time represented Sharp & Bohme.

Stone & Co., of Fifty-first and State streets, will remove to Twenty-sixth and Calumet avenue the 1st of May. Mr. Stone has done well at the old stand and hopes to do better in this nice residential neighborhood.

Charles H. Avery, druggist corner Fifty-fifth street and Monroe avenue, Hyde Park, will be very closely confined to business the next few weeks, as his prescription clerk was called home by the illness of his father.

Curtl & Co., Twenty-second street, opposite Dearborn street, will remove their stock and fixtures this month to the northeast corner Sixty-third street and Cottage Grove avenue, at the station of the South Side elevated railway, where they expect to do an increased amount of business.

John Masquett, formerly of Ashland avenue and Forty-seventh street, but later of the Western Glass Company, which has been destroyed by fire, is about to resume the retail drug business, and his ambition is to have a "South Side" drug store. Mr. Masquett is at present in Marlon, Ill., rebuilding the glass works, for which the town has offered to raise the funds.

A pathetic and touching incident occurred the other day in a southwest side drug store. A little while before, a man was seen gazing anxiously up and down, as though waiting for some one. He was apparently a laboring man. Some little after he entered the drug store and said: "You can telephone the doctor not to come now—the baby is dead." What a world of pathos and sorrow, expressed in those simple words, and how deep the hidden pain.

Last Friday the Retail Drug Association, of Chicago, called a meeting down town and spent an hour and a half in electing a president before taking up the regular routine of business. One of the members related an instance showing how careful the inspection of goods should be. He was called on to sell to one of his lady physicians some powdered ergot, and noticing the rather peculiar color of the powder, he took it to the inner room and after examining it, found the jar had been filled with "Maccaboy" snuff. It is hardly necessary to say that "Maccaboy" did not fill R. T. V. Wooten, West Madison street, was elected president, and a committee was appointed to investigate the "Hayes plan."

ST. LOUIS.

St. Louis, April 9.—The wholesale drug houses report a continued increase in the volume of business, both from the city and country trade. But while there is such a large volume of trade, there is a very unsatisfactory financial condition, so much so that wholesalers are not pressing sales, and in some instances they are declining to fill orders. A month ago the collections showed a promptness that led the wholesalers to believe that the period of stringency had passed, and that with the opening of spring there would be an abundance of money to meet all the requirements of the retailers. If this had been so, the season's trade would have been perfectly satisfactory. The Indian Territory offers St. Louis a very considerable trade, and while in volume it is as large as usual, the cash returns are so meagre just now that few sales are being made.

The St. Louis School of Pharmacy graduated about fifty pupils on April 9.

Mayor Cyrus P. Walbridge has returned from Hot Springs much benefited by his rest, and is again seen at his desk in the J. B. Merrill drug house.

Louis H. Behrens carried off the honorable mention in the graduating class of the Missouri Medical College. He has passed an examination for admission to the City Hospital.

The St. Louis wholesale drug houses continue to maintain the compact relative to prices and methods of delivering goods. Some of the retail druggists still object to the system, but the majority of them are accommodating themselves to the situation.

The Missouri State Board of Pharmacy met Tuesday at Kansas City and examined six applicants for registration as pharmacists. The examination was a written one, and also a practical one in the recognition of drugs, bottles and jars, which were in the examining chamber. The next sitting will be at Sedalia on the second Monday in July.

Joseph P. Tierney, the LaCade Hotel pharmacist, who went to his farm residence to recuperate his health, is being greatly benefited by the rural atmosphere. Mrs. M. M. Tierney, who succeeded him in the management of the store, has had extensive improvements made to the interior. The furnishings are all in white, and it is now one of the handsomest pharmacies in the West.

The effort to unite the Beaumont Medical College and the College of Physicians and Surgeons has come to naught. The object in uniting the two colleges was to strengthen the faculty and secure an endowed college. The trustees of the two colleges could not agree upon the proposition of the Beaumont board that all the members of the Beaumont should be taken into the faculty of the consolidated college. Another move may be made to effect a union.

Dr. John H. Jenks, professor of physiology and modern languages in Washington University, St. Louis, died Monday, April 9, of blood poisoning, the result of an accident which occurred a few days prior while dissecting a specimen before a class in physiology. He scratched his finger, but did not regard it as serious, but an itching sensation a day or two after alarmed him. Drs. H. H. Mudd and Harry Hodgson were summoned, but they discovered that his life could not be saved.

BUFFALO.

Buffalo, N. Y., April 9.—The drug trade is not satisfactory yet. Wholesalers say that the demand on them is not what it should be and retailers complain that a curious unsteadiness upsets all their calculations. If there is a good day once in awhile it is sure to be lost in a half-dozen very poor ones. Trade is not only slow, but movements of clerks and transfers of property have almost entirely dropped off. Every clerk is engaged in holding his place, for if he gives it up the chance is that the proprietor will conclude to get along without filling the position at present, and the result is that somebody is out. This being the time of year when there is a special call for cough medicines and the like, the failure to increase the slow sales of the winter is very disappointing. It's an ill wind that blows nobody good, though, and the mineral water people have found it out. The difficulty with the city water, which began about a month ago, at once increased the sales of all sorts of bottled water enormously. Even manufactured waters sold at such a rate that it was impossible to meet the demand. Bottles gave out and the wholesale druggists were beset for packages. The Lancaster glass works drove a rushing trade and are still doing so, for the confidence in the city water supply is not yet restored, though the danger is supposed to be practically confined to the mains, where the germs may propagate.

The typhoid fever epidemic, as it is called, involves two members of the faculty of the College of Pharmacy in a great amount of work. Dr. Wendt is health commissioner and Dr. Hill is city chemist. Both have worked very hard and given general satisfaction where fault-finding would naturally be great if any blundering or neglect could be discovered. Dr. Wendt detected the rapid increase of typhoid fever cases and at once ordered the use of boiled or filtered water only. The difficulty is supposed to have come from a single case of typhoid and was communicated to the water mains by the opening of a shore inlet to the pumping tunnel sometime in February, on account of the inlet in mid-Niagara being clogged by running ice. There were several hundred typhoid cases in all, 100 being reported in a single day, though some of them were old ones. As a rule the disease has been mild, though there have been a number of deaths. Hardly since the last cholera epidemic here in 1852 or thereabouts, has there been more of a stir. The medical fraternity soon divided on the question whether a filter would purify the water. The typhoid cases have dropped off, but the water will not be recommended till the big reservoir can be drawn off and the mains flushed. There was some doubt as to the method of attack. City Chemist Hill went to New York to look into the workings of the new electrozone and was satisfied that it is the coming disinfectant, but it involves the setting up of an expensive electrical plant that might not be needed afterwards, so the health commissioner has decided to use bromine. The plan is to draw off the reservoir and then use the dissolved bromine in spray form. As 60 pounds will be sufficient and the price by the single pound is only 80 cents, the cost will not be great. Dr. Vandenberg, the chemist, is not in the good graces of the

health commissioner and his suggestion that the big reservoir be drawn off was not at first received with favor, but was at length adopted. The trouble now is over the merits of liquid chlorine and bromine as disinfectants. Dr. Vandenberg asserts that it stands in proportion of 30 to chlorine and 35 to bromine. Moreover, chlorine can be had for 25 cents per pound. The health commissioner sneers at the wisdom of anyone who claims that a gas—not appearing to be acquainted with liquid chlorine—is worth anything in disinfecting a reservoir, and Dr. Vandenberg retorts in kind as to people who think chlorine is always a gas. He has procured an offer from a New York firm to sell liquid chlorine in quantity at the above price. Still the health department has ordered City Chemist Hill to go on with the bromine. The walls of the reservoir will be sprayed and scrubbed with brooms.

The Buffalo druggists have lately shown their strength in a determined descent upon three bills in the Legislature. They are called the liquor bill, the fluted bottle bill and the cocaine, chloral, etc., bill. The first provides for a druggist's license of \$50, by which the druggist may sell all sorts of liquors in less than 5-gallon quantities for certain named special purposes. The second bill concerns the trade in poisonous liquids by making it necessary to handle them only in certain labeled fluted bottles, and the third forbids the sale of preparations of opium, chloral or cocaine except on a physician's written prescription. (See editorial comment in this issue.—Ed.) The Erie County Pharmaceutical Association, which exists mainly for the purpose of dealing with emergencies, held two meetings late in March, the latter being on Saturday, March 24th, so that the local members of the Legislature could attend, as some of them did. The meeting was in charge of President A. C. Anthony, with Plin S. McArthur, secretary. A local paper sums up thus concisely the action taken:

"A lively discussion of the conditions of the bills ensued. It was declared that their passage would rob the druggists of the right to do a legitimate business. Erie County at the present time is not governed in the matter of restrictions of the sale of drugs as some of the other parts of the state, but a special law was enacted some time ago which is thought stricter upon this county than any other county in the state. The bill regulating the putting up of certain poisonous liquids in fluted bottles was the one which was most hotly received. It was impossible for the members to determine how it would work any benefit to the public if it should become a law. The distinction for the customer would be no different than at the present time. It is claimed if any of the bills become a law it will work a great injustice to the druggists, and in a large measure ruin their business. After the discussion had brought out all the objections to the bills it was resolved to repeat former action and to place the association upon record as opposing all of the bills, and also to request the Erie County members to do all in their power to defeat the proposed measures."

The meeting directed Secretary McArthur to send out circulars to every member of the association, calling attention to the bills and urging them to send individual letters to their representatives

at Albany, asking them to oppose the bills. The association has also asked for a hearing in the legislative committees, the bills having been introduced, some in one House and some in the other, and as soon as one is appointed another meeting will be held and a delegation made ready. So far no hearing has been announced and it is possible that none will be needed. It is reported that at least one bill is already dead in committee, and it is thought that the others will share its fate.

Charles A. Cooley, of Batavia, a graduate of the Buffalo College of Pharmacy, has bargained for a drug store in the neighboring village of Nunda.

William J. Pauling, clerk in Gregory's Genesee pharmacy, took the typhoid fever during the prevalence of it and went to the hospital. The attack was mild, however, and he is recovering.

F. L. Zimmerman, a Rochester pharmacist, has leased a store in the new business block at Central avenue and South Liberty street, Batavia, and will soon open a drug establishment there.

The Buffalo Ammonia Company has decided to enlarge its plant in order to about double its capacity. This company has recently acquired control of a similar works in Toronto and will also increase their capacity, as a part of the product turned out at the factory in Buffalo depends upon the capacity of that factory.

City druggists are wondering how far the price of cod liver oil will advance. They hear all about the small catch of cod to account for the smart rise in the price and wonder if that is all there is in it. The sharp fellow who is ready to corner any article that has suddenly become scarce may be about somewhere.

Judge White, of the Buffalo Superior Court, has issued an order authorizing Frederick Haller, as receiver of the Holland Medicine Company of this city, to sell all the outstanding book accounts and medical formulae for the medicines known as German Blood Food, Vitalka, and also a specific for catarrh. The accounts amount to about \$1,000.

Dr. Gregory lately visited the Illinois College of Pharmacy and the University of Chicago. He was greatly taken with the Kent laboratories of chemistry that have lately been established in the latter and calls them wonderful. He regrets that the Buffalo colleges were too far away from the World's Fair to profit, as Chicago colleges did, by the donations from exhibitors who didn't care to take their goods home again.

The College of Pharmacy is preparing for the annual examinations, which begin on April 16th. Some of the lecturers in the course concluded their work as early as April 1st, and the others hastened forward to get through. The class is a good one, but the course is severe and there is the usual amount of anxiety. Drs. Gregory and Gray are already engaged on the announcement for next year. The course is now so well defined, however, that few further changes are contemplated.

The students at the University of Buffalo have organized a collegiate V. M. C. A. John R. Mott, international secretary of this society, is here and has aroused much enthusiasm on the subject, especially in the matter of foreign missions, in which the organization is largely engaged. The four colleges of the university, medicine, pharmacy, dentistry and

law, muster about 450 students all together and a strong branch is assured. Mr. Bond, assistant manager of the American Radiator Works here, is to address the students on the subject also.

Charles Emmons, a druggist of Allegheny, near Olean, has been acting very queerly lately. He went into the house of Mrs. Flora Blessing, of Olean, a week or two ago and asked her to go on a trip with him. She refused and he drew a revolver and threatened to shoot her and her children. They ran out of the house and called a neighbor, who took the revolver away from Emmons. The latter then ran into the pantry and cut his throat with a butcher knife, though not inflicting a dangerous wound. Both he and Mrs. Blessing are married.

A city druggist says that the morphine habitues, as they are called, are destined to practically disappear with the present generation. There are no young people taking to the use of the drug. As a rule druggists dislike the trade and will be glad when it disappears. The regular customers now are mainly oldish women. The remark was occasioned by some reference to a customer, a woman, of course, who actually takes 25 grains at a dose and besides that fills up the chinks with brandy. She uses up all the money in that way that she can get and sets people to wondering what she would do if cash were unlimited.

The County Board of Pharmacy is having a quiet season at present in respect to violations of the law. There is so little change among the stores that the new druggist who imagines he can sell his goods without a licensed pharmacist is not at all numerous. The board has been very vigilant and gives no quarter. A story that there were groceries and other establishments on the east side selling poisons and the like is denied. There is a rumor that there is indication of an outbreak of price cutting, but druggists are reticent about it, saying that they hope to smother the thing quietly and save a resort to arms.

CLEVELAND.

The Ohio Druggists' Mutual Fire Association is a new Toledo corporation.

Will Flood, the popular Woodland avenue druggist, will organize a baseball nine.

Otto R. Goodyear, of 1396 Pearl street, contemplates opening a new store in the Lucas block, corner Walton avenue and Pearl street.

These hard times are leading to all sorts of makeshifts, a fact exemplified by the action of the city hospital authorities.

The officers of the Sandusky Druggists' Association for the ensuing year are Chas. A. Lehrer, president, and Adam Gerlach, secretary.

Novel and greatly improved changes are going on in the laboratory of Strong, Cobb & Co. When finished it will answer all modern requirements.

Wm. Bodenbender's well-known east end pharmacy is about to be sold. The name of the ingoing firm will be announced in the next issue.

S. M. Strong has been confined to his home for some time, but is now convalescing. While engaged in pruning trees, he lost his footing and injured his leg.

The Norton Chemical Co., of Chicago, and the Beemalt Co., of Boston, Mass.,

are holding a great advertising revival in this city.

The Kleant Manufacturing Co. is a new Akron corporation. It will manufacture cleaning compounds, etc.

A Coxy cigar is already on the market. What is the matter with a Coxy remedy? A commoneval cure with Coxy's trade mark is just the thing.

Henry W. Stecher is making preparations for the opening of the fly-paper season. His facilities will be equal to any enlightening spurt which may set in.

"Shall or can an allopath consult with a homeopath from a moral standpoint?" This is the question which perturbs the peace of the Cleveland Medical Society and threatens disruption.

Kinney, Levan & Co., the great Cleveland crockery house, are exploiting a patent jug especially destined for liquors or liquids in quantity. It is pronounced the most ingenious desideratum of the times.

Albert Schram, one of Arthur F. May's assistants, fell into the hands of a sharper recently, but did not care to avail himself of the inducements offered, notifying the police instead. It was the old bogus gold watch racket.

James and Charles Melville, the Sandusky druggists, were recently arrested for obstructing an officer of the law. The trouble seems to be the outgrowth of a political feud in connection with the possession of the county books by an examining committee.

The Diamond Rubber Co., of Akron, has been incorporated with a capital stock of \$50,000. The incorporators are Park B. Johnston, George Sherbundy, William Sherbundy, Frank O. Reinsnyder and Walter Sherbundy. The lines of manufacture will include druggists' specialties.

There are dangerous, rebellious law propositions now before the Ohio Legislature directly affecting the pharmaceutical profession. I say with Texas Siftings: Don't be a clam. If you have got to be anything of the kind, be a mud turtle. Then you may have some snap to you.

Novelties received by a local wholesale house in the sundry line are Havana cigars packed each in a hermetically closed glass tube, ten in a box. A liquor flask in true imitation of a cigar. The latter will no doubt become popular, owing to its practicability and cheapness. Hypocrites, both male and female, are happy.

The pure food exhibition which opened at the Cleveland Grays' armory April 2, has proved a success. It should be repeated periodically on a much larger scale to fitly illustrate the scope to which the pure food and drugs movement has attained. The exhibits will be shipped to Detroit, to reopen at the Auditorium for three weeks.

The Star Pharmacy, of imputed cut-rate-iniquity, was dislodged from its erstwhile location in the Case building, but hobbled up soon after at 55 Euclid avenue. The act of retaliation adopted by the C. P. A. will consequently remain in force indefinitely unless somebody decides that a move à la Da Gama were allowable under the circumstances.

Among the exhibits of the pure food fair are the Andrews Soap Co., Cincinnati; Plymouth Rock Gelatine Co., Cincinnati, Mass.; the Malted Milk Co., Racine, Wis.; C. B. Knox Gelatine Co., Johnston, N. Y.; the Welch Grape Juice Co., Vine-land, N. J.; E. S. Burnham Co., New

York; New York Condensed Milk Co., Swift & Co., Chicago, and the N. K. Fairbanks Co.

The city chemist has been put to work at compounding medicines and drugs in quantities, and he claims to have reached the following economical results: Tincture acetone, formerly \$5.35 per gallon, now \$2.65; tincture belladonna reduced from \$2.43 per gallon to \$1.43; tincture digitalis from \$2.38 to \$1.38 per gallon, tincture opium from \$5.50 to \$4 per gallon, other preparations have been produced at a similarly low cost.

There is more business done now on a cash basis than was ever known before the calamity period. Necessity and caution compelled a great many retailers to sell for cash only, a practice which, if continued, will have most salutary effects. J. F. Mund, the Broadway druggist, has always conducted a cash business, and practically demonstrates that it can be done without running the risk of diverting desirable patronage.

An old-time drug clerk of downtown nocturnal experience ought to be an infallible judge of mankind, but it seems as if C. M. Jordan, the night operative at the Euclid Avenue Pharmacy, were still uninitiated in the wiles of this world. About a fortnight since a stranger dropped in on him early in the morning requesting a loan on a \$250 diamond ring. C. M. was smitten with the hard-luck story of the caller and the morning star brilliancy of the ring with which he hoped to out-dazzle the most aggressive Easter avenue belle. But, oh, my! The police value the ring at about ten cents, and C. M.'s \$10.50, which he advanced on it, seems to be gone, gone forever.

April 1 was certainly a fool's day for Henry Johnson, alias Russel, and an unlucky one into the bargain, for that date marks the sudden termination of his bold career of crime. Johnson, who claims to be a chemist, and incidentally, the representative of a medical publishing house which accepts superannuated patent medicines in payment for advertisements, had been wanted by the police for some time for obtaining goods and money under false pretences and forgery, but deeming himself in danger had skipped for parts unknown. Emboldened, however, by the seeming lassitude of his Nemesis, he returned to Cleveland on April 1, coming from Detroit, where he has doubtless defrauded the drug trade also. No sooner did he land here than his canvass among the druggists was resumed; for he had obtained a new supply of drugs and medicines which he was anxious to turn into money. The detectives were not long in scenting their prey, and "chemist" Johnson was nabbed dead to rights. The specific charge against the swindler is forging Supt. Webber's name of the Huron Street Hospital to an order for medicines which Heller & Clouvy filled, as reported in the Era of March 15.

J. D. White, father of druggist W. L. White, Grand Rapids, Mich., committed suicide recently. It is thought domestic trouble induced despondency and led to the deed.

The death of Maj. Henri Le Carron, the British government spy, has been announced in London. He was at one time president of the Illinois Pharmaceutical Association and a retail druggist in Braidwood, Ill.

CINCINNATI.

Cincinnati, O., April 8. The suicide of druggist Charles Kampfmüller on March 27 last caused no end of talk, as the deceased was one of the best known pharmacists in southern Ohio. Shortly after 1 o'clock p. m., on the above date, a son of the deceased walked into the drug store, corner of Fairfax and Woodburn avenues, Walnut Hills, and found his father seated in a chair behind the prescription case, apparently deathly sick. The latter, with much anxiety, gasped "I have taken poison." A doctor was hastily summoned and then young Mr. Kampfmüller set to work to resuscitate his father, but his efforts were unavailing. In a short time life was extinct. The members of the Kampfmüller family are unable to assign any reason for the rash deed of the deceased save that he was an almost constant sufferer from muscular rheumatism. His pain was often so intense that he could no longer bear it, is the logical conclusion which many have formed as an excuse for his ending his earthly career.

Mr. Kampfmüller was born in Cassel, Germany, fifty-eight years ago, and came to this country when quite young. He conducted the drug store at Central avenue and Everett street for about twenty-five years. Ten years ago he opened the elegant pharmacy in Walnut Hills, and it is to-day doubtless one of the best-paying stores in the hill. The domestic relations of the deceased were always of the most pleasant nature, and he leaves a most interesting family. The funeral was one of the largest ever seen in Walnut Hills. The store at Fairfax and Woodburn avenues will in the future be conducted by the son of the deceased.

Louis W. Sauer, the central avenue druggist, came into possession of a novelty the other day that attracted widespread attention among the residents of Brighton and vicinity. It was nothing less than a pair of shoes that have been sent from one point to another on the lines of the United States Express Company, until now the tags attached to them can be counted by the hundreds. Mr. Sauer is an agent of the above company in the west end. The shoes are roughly constructed affairs, and from the inscription on the soles it is ascertained that they started on their travels from Norwich, Ct., February 27, 1894.

A well known travelling salesman caused no end of comment in drug circles here a few days ago by announcing that Eb. Cheney, the drug salesman who was supposed to have been drowned in the Ohio river, had been seen in New York and other eastern cities. Cheney traveled for C. P. Calvert & Co. for a number of years, and was supposed to have met a watery grave near Ripley, O. It was thought at the time his body was found that the identification was complete, but Mrs. Cheney recently stated that she never saw his remains. The matter is being investigated by Mr. Cheney's relatives, and developments are anxiously awaited.

(In this connection the following letter is pertinent.—Ed.)

To the Editor:

Your correspondent from this city says the accounts of W. C. Arons, the book-keeper who suicided, were all straight. We wish to make no reflections on the deceased, but have never said this to anybody. The accounts are being exam-

ined, and it is not known what, if any, shortage there is. Eb Cheney, who traveled for the writer, was mentioned in a way to at least justify the conclusion that his was a case of suicide. Mr. Cheney was not in the employ of C. P. Calvert & Co. at the time of his death, but was with a jobbing house of Columbus, O. But I wish to state my belief that Eb. Cheney NEVER SUICIDED. The writer investigated the matter carefully, and to his mind Mr. Cheney was accidentally drowned. His was a noble character. There was no shadow of a suspicion on anything he did. He was a good business man, truthful, earnest and conscientious in his work, and had the most delightful family relations. Nothing previous to nor since his death has ever shown there was the slightest cause for a desire to die. He was, in the mind of the writer, one of God's noblemen, and it is a pleasure to speak with such knowledge of a man known to the writer from the beginning of his business career.

Very truly,

C. P. CALVERT,
President of the Standard Drug Co.

Druggist Ed Gray is out again.

Dr. Leroy Bramble, the physician-druggist, is on the convalescent list.

John F. Haynes, who is representing Lehn & Fink, of New York, on the road, will soon be with us again.

Adolph G. Falk has opened an elegant drug store at Delhi. The place is a beauty and is strictly up to date.

Frank B. Hight, the clever representative of the Butler Hard Rubber Company, is here circulating among his host of friends.

Herman E. Iglar, the well known pharmacist, has just opened an elegant pharmacy in the beautiful suburban village of Glendale. The appointments of the store are excellent.

John B. Rascher, the veteran pharmacist who was formerly with H. H. Kooken, is now the manager of the Darragh Pharmacy, corner Richmond street and Central avenue.

Dr. John Keeshan, the veteran druggist, has been suffering from the peculations of one of his employes. The fellow was caught "dead to rights" a few days ago and peremptorily discharged.

The commencement exercises and annual examination at the Cincinnati College of Pharmacy will be held next week. The boys are putting in their best licks now preparing for the examination.

Dr. John C. Otis is still making extensive alterations in his pretty store corner of Sixth and Vine streets. When the doctor gets through with his remodeling his place will be entirely metamorphosed.

A fine oil painting of Sandow, the strong man, is on exhibition in one of the large show-windows at Weatherhead's drug store, corner Sixth and Vine streets. The picture is the property of the Bovox Essence of Beef Company, of Boston.

Dr. R. H. Weatherhead is making some necessary changes in his store at Sixth and Vine streets. The cigar department has been rearranged and the soda fountain is adorned with potted plants in honor of the arrival of gentle spring.

Druggist Emil Heun has been re-elected treasurer of Elmwood Place. His term of office began last Tuesday, and was for the next two years. The election of Mr. Heun was against the wishes of the coun-

cilmen, who at once increased the treasurer's bond from \$5,000 to \$25,000. Mr. Heun gave the increased bond.

The Stillwell bill, which is now pending in the Legislature at Columbus, is being bitterly fought by the druggists of the city, and, in fact, all over the state. The bill makes it mandatory that all pharmacists in Ohio shall pay \$250 a year for retailing liquors.

At the commencement exercises of the Ohio Medical College last night a number of local young pharmacists were noticed. The drug business must certainly be a healthful occupation, for a large number of druggists were also prominent at the banquet table.

Frank G. Grote, well known wholesale druggist, was throwing bouquets at himself yesterday, and every one of his many employes received a nice present. The cause of Mr. Grote's bilious mood was the arrival of a beautiful girl-baby at his home in Walnut Hills.

Gov. McKinley has appointed the three new police commissioners, and there was not a druggist in the trio. Ed Detner, John Bauer and other pharmacists who had aspirations in this direction must now be contented to take a back seat and wait until some member's term expires.

Julius Greyer, the clever pharmacist, is now said to be the champion bowler at Music Verein. Julius is also "some pumpkins" at dancing, and his society is much sought by the charming members of the gentler sex. Herr Greyer's friends regard him as the Beau Brummel of the profession.

The show-window at Ed Voss's drug store, corner Twelfth and Vine streets, contained an automatic hen last week which laid wooden eggs at certain intervals. The device was used as an advertising medium for an Easter theatrical attraction, and it also did some good for Bro. Voss and his pharmacy.

George W. Kyllius, the druggist at Liberty and Denman streets, has gained some distinction by being the first member of his craft to purchase a season ticket at the ball park. George is a dyed-in-the-wool crank, and between his library and horse and buggy he will now have very little time for "frivolous" pleasure.

Louis Rapp, a popular young "peste jammer," is now in charge of Groenland's pharmacy at Fifth and Smith streets. Lou is well known among the druggists and was for several years the senior clerk at Friemalt's Pharmacy, corner of Eighth and Main streets. It is hinted that he is soon to lead a charming society belle to the altar.

A petition was circulated among the wholesale druggists one day last week to see how they felt about closing their stores at 12 o'clock noon on Saturdays during the heated term. Every man signed the petition, and the boys can now rest assured that they can see all the ball games on the last day of the week during July and August.

The Board of Hospital Trustees met yesterday, but no decision was arrived at as to whether the homeopathic and eclectic physicians should be accorded the same privileges as their allopathic brethren. The board of trustees, as a committee of the whole, will soon visit the Cook County Hospital to see how that institution thrives under the management of a "mixed" staff.

A novelty has been introduced among local druggists which seems to be in popular favor. It is a small celluloid dial with two hands. It can be fastened upon a bottle and the hands so arranged that an absent-minded patient cannot forget when to take his medicine. Several of the downtown pharmacists have laid in large stocks of the simple little device.

There is a scheme on foot among local physicians and pharmacists looking to the erection of a mammoth building for the use of the leading disciples of Esculapius. The contemplated structure is to be patterned after a similar building which is soon to be erected in New York. The first floor is to be occupied by druggists and dealers in medical supplies, and the offices are to be rented to doctors. The building will be nicely arranged for the convenience of the sick.

The employes of the various wholesale drug houses have taken the preliminary steps toward organizing a social club, to be known as the "Pill Rollers." It is expected that the organization will include fifty of the best known young men employed in this city, and a club house is to be secured in the west end. The proprietors of the different drug houses are encouraging the scheme, as they think social intercourse among the men will be productive of much good.

FROM THE SOUTH.

Ed Delouest, Ocala, Fla., has sold out. D. D. Smith has opened a new store at Waterboro, S. C.

E. S. Lyndon, La Grange, Ga., is succeeded by P. R. Holt.

Dr. P. Burgos, of Key West, Fla., has removed his business to Tampa.

J. T. Ames has purchased the pharmacy of J. A. Woodcock, Asheville, N. C.

P. F. Fleischmidt has accepted a position with G. F. Hedrich, Charleston, S. C.

E. A. Phillips has removed his business from Clear Water Harbor, Fla., to Tampa.

H. E. Walsh, representing the Pictorial Printing Co., of Chicago, has been in Atlanta.

Richard Nevette & Co., Richmond, Va., have dissolved, and are succeeded by D. A. Kuyk.

George Hughes, a prominent druggist of Jacksonville, Fla., has made an assignment.

Dr. J. A. Paciti, Jacksonville, Fla., died several days ago. His business is being wound up by his widow.

Messrs. Lewis, Bailey & Co., Shreveport, La., who were burned out a few weeks ago, will at once rebuild.

T. L. Massenber, of Macon, Ga., was made permanent receiver for the Brady Crotine Co., of the same town.

Max. Bloomstein, Nashville, Tenn., has removed into his new store, which he recently fitted up in elaborate style.

Dr. Bailey, of Beaufort, S. C., has bought the business of N. J. Hathorn, deceased, 117 West Mitchell street, Atlanta, Ga.

J. A. Conover, late manager for Dr. J. C. L'Engle, Jacksonville, Fla., has bought out Mr. N. Woodridge, of the Everett Pharmacy.

M. E. Lee, H. M. Lee and J. H. Collins have applied for a charter for the "Lee's Pharmacy Co.," Atlanta, the capital stock to be \$3,000.

G. H. Thompson, for some time with C. F. Swettman & Son, is now with H. Plenge, both of Charleston, S. C.

The Clara Pharmacy, Atlanta, Ga., has removed from corner Clara and Marietta streets to corner Moore and Decatur streets.

Mr. Phillips, formerly with Bowle & Moles, of Charleston, S. C., has gone into the wholesale drug business in Jacksonville, Fla.

Frank Smith has purchased the West End Drug Store, 138 Wentworth street, Charleston, S. C., formerly owned by C. G. Elekman, deceased.

Mr. Hayden, of Hayden & Kirke, Jacksonville, Fla., is dead. Mr. Kirke has bought his late partner's interest, and the firm is changed to J. E. Kirke & Co.

Charles E. Scharloek has purchased the branch store of Dr. H. Baer, corner Middle and Calhoun streets, Charleston, S. C., of which he has been manager for many years.

Several of the druggists of Atlanta have been fined in the city court for running nickel-in-the-slot machines at their cigar stands, they being called lotteries on a small scale.

Trevitt & Johnson, Rome, Ga., have bought out Hammock, Lucas & Co., and will run this store, together with Crouch & Watson's old store, 206 Broadway street, same town.

W. H. Lightstone, of the Palmetto Pharmacy, Jacksonville, Fla., has sold out his business and removed to Charleston, S. C., and is now clerking for the Palmetto Pharmacy, of the latter city.

Jacob's Pharmacy Co., Atlanta, have leased nearly the whole ground floor of the Old Capitol building, corner Marietta and Forsyth streets, and will remodel it, making it the largest drug house in the south.

There is great excitement in South Carolina over the dispensary law, allowing apothecaries to search private residences. Riots have occurred in several towns, and a few of the dispensaries sacked and burned.

PACIFIC COAST.

Mr. Richardson and family, of Merced, have arrived in Modesto, where Mr. Richardson is engaged as druggist.

D. J. Hill, a popular druggist of Castle Rock, Wash., was recently united in marriage to Hattie Clark, one of Cowitt's successful school teachers.

The new drug store at Moreno, Cal., is being rapidly put in shape, and will be in running order next week. Ward McKim has assumed charge of the store.

The Board of Health of Sacramento, Cal., held a short meeting March 22 and elected Dr. Fowler city physician. He will act as Health Officer and secretary of the board.

Wm. Hunter, formerly in a drug store at Walla Walla, Wash., has been arrested on a warrant sworn out by a livery firm of Spokane, charging him with the larceny of a team.

Otto G. Trautz, who has had charge of the prescription department of Parker & Chatfield's drug business, Biggs, Cal., has accepted a position with a firm in San Francisco, where he will go after the 1st of April.

The manufacture and sale of drugs is the object of the Dr. C. E. Teel Co., which has filed articles of Incorporation. The place of business is to be at Taco-

mn, Wash., and the capital stock is \$100,000.

After April 1 the store now occupied by the City drug store in the International Hotel block, Helena, Mont., will be for rent. Marcus Lissner, the owner of the store, will make it an object to any one who may desire to rent the premises for the drug business.

Wm. Stewart, the druggist at Napa, Cal., files his petition to be declared insolvent. His liabilities are \$4,482.25, divided about equally between Napa parties and San Francisco and eastern firms. His assets, consisting of stock and fixtures, amount to \$1,100.

The congress of physicians is to convene in San Francisco June 5. Among the prominent men who will attend is N. S. Davis, of Chicago, the father of the association. Excursions will be arranged for the visitors in all directions. Special rates have been offered by steamship companies and by some of the railroads, as well as by the hotel people.

The business failure of C. B. Elbe, proprietor of the pharmacy at the corner of Park street and Santa Clara avenue, Alameda, was a decided surprise to his neighbors. The failure is attributed by Mr. Elbe to his inability to collect outstanding bills. He made an assignment to Redington & Co., wholesale druggists of San Francisco, to whom he is said to be indebted in the sum of \$2,000. Max Glas, who has been in Mr. Elbe's employ for some time, was installed as manager by Redington & Co.

THE INTERSTATE LEAGUE AND JOHN D. PARK & SONS CO.

The enemy of the retail drug trade is beginning to realize the power of united action instituted by the Interstate Retail Druggists' League. This is so clearly demonstrated by the issue of a circular letter by Messrs. John D. Park & Sons Co., of Cincinnati, that comment upon this fact is wasted. The circular plainly indicates that the wholesale drug trade of the United States has commenced to retaliate for Park's many aggressions by refusing to distribute their special goods and patents of their own manufacture. This firm is likewise convinced that there will be no break in the ranks of the wholesaler and that they need not look for aid in that direction. The circular letter calls upon the retail drug trade, under the guise of friendship, for assistance to defeat the legitimate wholesale druggist in his efforts, as the true friend of the retailer, for the re-establishment of legitimate profits. According to this carefully worded circular, the retail druggist is requested to order direct Park's special goods and all other wares; in consideration of Park's generous offer of the payment of freights and the additional inducement of an extra 2 per cent discount. Was there ever a more striking illustration of the "wolf in sheep's clothing" than this circular letter of Messrs. John D. Park & Sons Co.? In the guise of injured innocence, Park calls upon the retailer for assistance; such audacity is unheard of in all annals of mercantile history. The retailer will not allow himself to be again deceived and caught by the miserable bait of 2 or more per cent. The wolf in sheep's clothing has been recognized and the baiting process, to defeat the efforts of the true and tried friend, the wholesaler, is a thing of the past. One need but read a little history

to be convinced that the firm of J. D. Park & Sons Co. are not the friends of the retail drug trade. According to the minutes of the United Drug Association of Cincinnati, O., a committee of three called upon this firm seeking their cooperation with the wholesale drug trade of this city in the re-establishment of full prices on all patent medicines. The firm, J. D. Park & Sons Co., flatly refused, saying, according to the minutes of the association, "Our interests are with the cutter and cutting. Our trade consists to the amount of 60 per cent of cutters and we prefer the cutter's trade to that of the legitimate retail druggist." Their opposition caused failure, not alone in Cincinnati, but in every large center of the United States. Every retail druggist has had a taste of cutting and has ascertained by this time that the wholesaler is his friend, and not the supporter of cutters, Messrs. J. D. Park & Sons Co. This firm realized this some time ago, and therefore the present appeal, "Come here to me, you retail druggists of the United States, give me your orders, I am your friend because I give you 2 per cent on the regular wholesale prices." The wholesale drug trade, in connection with the manufacturers, have exerted themselves to assist the retailer, and it depends upon the retailer to accept or refuse that support. To be misled by this sly circular of John D. Park & Sons Co. means absolute ruin to the retailer. The retail drug trade must operate under the principle, "Stand by your friends and withhold your orders from the enemy." Organize in every locality and join hands with the Interstate Retail Druggists' League.

C. T. P. FENNEL.

REMEDY FOR HARD TIMES.

Never keep money which is due to another. Simple as is this rule, there is none so generally disregarded. We have a large class in this community whose bank accounts would allow them to owe no man anything save charity and good will, yet who make it a matter of pride to pay no small debts save by lordly courtesy or at such times as it may please them to make a check to the marketman or the mechanic. To them it appears as though the good name they have always borne puts them above suspicion. They would pay instantly upon being dunned by the humble creditor, and the latter would await their pleasure months and borrow money rather than ask for his due, since to demand his own would be to lose their custom in future. If you cannot pay what you owe, or owe nothing, you have no duty in this respect; but if there is the least sum due for work or purchases see to it that the sun does not set to-night until that sum is put into circulation.

Spend all you can possibly afford to disburse. I give this advice boldly, says a writer in the Boston Transcript, although it is just to the contrary to that usually offered. But one does not have to be a political economist to see that the relief would be instantaneous. Debt is always to be avoided, but the last available dollar is a blessing to the community. What possible good does money do which is hoarded instead of being put into circulation? Suppose a man in the possession of an income of \$10,000 a year were to enter into one of our suburban villages and daily spend among his neigh-

bers that proportion which he would receive each day? I do not mean giving it right and left for the support of the poor or shiftless, but buying the labor or products of his poorer brethren. Does it require any instruction in political science to see that he would at once turn that town into a very paradise of prosperity? And if all those in comfortable circumstances would scrupulously do this, the dissemination of comforts would increase in proportion to the money spent. The philosophy of Benjamin Franklin has cursed this country with a mania for hoarding. We fail to realize that the identical economy which may be commendable in the young mechanic, may be a positive wrong in the retired merchant. Did you ever calculate the amount of good done by (let us call it the Franklin phraseology) the useless extravagance of inviting a lady to the theater? In the first place, in accepting, she will probably disburse for gloves, millinery or seamstress work quite a pretty sum, each payment being a blessing to the one who receives it, sometimes representing to the employe the very means of life. Then your own disbursement will help support the hack driver, the florist, the hotel where you dine together, while it would be impossible for the worthy corps of the employes of the theater to get their daily bread were it not for just such extravagance as that of which you are guilty.

To rigidly economize at such times as the present, so that you may have the means to give for benevolent purposes is simply to withhold with the one hand that you may disburse with the other. If the two rules herein recommended were observed by every person in the community, only the inebriate and the culpably shiftless would be a charge on their fellows. As intimated here, I do not in the least share the general commendation of Benjamin Franklin. His maxims are worldly, sensual, selfish, entirely ignoring chivalric, spiritual or lofty ideals. The effect of his parsimonious ideal of human conduct is to be seen in just such stringency as that which is now felt by the American people.

BOARDS OF PHARMACY.

Florida Board of Pharmacy convenes May 15 at Tampa for the examination of candidates for registration.

Connecticut Pharmacy Commission will hold its next meeting for the examination of candidates Tuesday, June 5, in the capitol at Hartford.

Louisiana Board of Pharmacy at its session held in New Orleans March 15, gave certificates of registration as qualified assistants to Chas. A. Lopez, E. F. Bacon, F. E. Wellbacher and G. Charbonnet, of New Orleans. Certificates as registered pharmacists were granted to H. J. Fournet, St. Martinsville; B. F. Holmes, Franklyn and C. G. Magruder, New Orleans.

Wisconsin Board of Pharmacy at a recent session in Green Bay elected H. C. Schranck, Milwaukee, president, and E. E. Helmstreet, Janesville, secretary-treasurer. Meetings for examinations were fixed as follows: Madison, June 13; Racine, August 17; Milwaukee, November 14; Milwaukee, January, 1895, Baraboo, March, 1895. One hundred and sixty-five candidates were examined by the board last year, out of which number thirty-two

licentiates of the first class and sixty-three second grade certificates were granted, while seventy were rejected. Thirty-seven licentiates from other states were granted certificates. There are in the state 1,133 first grade and 286 second grade registered pharmacists. Since the law was passed in 1882, 2,455 have been registered, and of this number 1,036 have been canceled by death, removal or retired from business.

The Virginia Board of Pharmacy at its eighth annual meeting held in Richmond, March 19, examined forty-two candidates, granting certificates as registered pharmacists to H. J. Brady, Baltimore, Md.; J. A. Booth, Stuart; Robt. L. Fruar, J. Virgil Tarrant, Richmond; Fred S. Boyd, Winchester; J. R. Connell, Lynchburg; E. L. Erb, Roanoke; J. S. Fitzhugh, Charlottesville; W. C. Ellett, Christiansburg. Registered assistants: W. R. Canbourne, Roanoke; H. R. Coleman, Charlottesville; S. J. Carson, Staunton; Samuel W. Stone, Robert C. Ruedy, Roanoke; W. E. Griffiths, Edmund Christian, Robert L. Booker, J. A. Garland, Richmond; T. A. Harrison, Manchester, and Robert E. Nelson, Norfolk. C. P. Kearfoot, of Martinsville, was appointed to succeed C. E. Fleet as a member of the board.

The legislature having materially amended the pharmacy law the board adjourned to meet at Blue Ridge Springs, July 10 to consider its provisions. T. A. Miller, of Richmond, was chosen president of the board.

PHARMACEUTICAL ASSOCIATIONS.

The Kentucky Pharmaceutical Association meets in Paris, May 16.

The Eastern Maine Pharmaceutical Association has been organized by the druggists of Bangor and vicinity. J. W. Taney is president and F. H. Tupper secretary and treasurer.

Santa Clara County, Cal., Retail Druggists' Association at its annual meeting held March 19, elected the following officers for the ensuing year: President, R. E. Collins, Sr.; vice-presidents, T. J. Riley, W. S. Johnston; secretary, J. G. Munson; treasurer, C. W. Fischer; executive committee, S. H. Wagener, L. Callish, G. G. Morehead, C. Perrin and E. H. Baker.

The Boston Druggists' Association met April 4 for the purpose of taking appropriate action upon the death of William J. Cutler. The following resolutions were presented and unanimously adopted by a rising vote:

Resolved, That as members of the Boston Druggists' Association, as well as on behalf of the trade which we represent, we desire to place on record our appreciation of the life and character of William J. Cutler, a member of this association from its organization and at one time its president. That we recognize the comprehensive and executive ability which characterized his faithful devotion to his public and private interests of his calling for more than sixty years. That we gratefully bear witness to his firmness of purpose, his ready friendliness and helpfulness to others, his courtesy, his absolute integrity, and his spotless character. That we tender to Mr. Cutler's family our sincere sympathy in a sorrow which we share with them. That a copy of these resolutions be furnished to Mr. Cutler's family and to the press.

The following gentlemen were appointed a committee to attend the funeral of Mr. William J. Cutler: Mr. Thomas Doliber, Mr. Joseph Burnett, Mr. Nathaniel J. Rust and Mr. Gorham D. Gilman.

The Nebraska Pharmaceutical Association meets in Hastings June 5. The local druggists are already making arrangements for the event and the local secretary says the meeting will be a complete success.

The Ohio Pharmaceutical Association meets in Cincinnati May 22. G. L. Hechler and Lewis C. Hopp, both Cleveland druggists, are president and secretary respectively. A. Wetterstroem, Columbus, is local secretary.

The Milwaukee, Wis., Drug Clerks' Association believe in frequent social gatherings. At a recent meeting H. I. Webber delivered an address on "Pharmacy" and Casper Henrici gave a recitation. E. Memecher, Jr., is the corresponding secretary.

COLLEGES OF PHARMACY.

The Pittsburg College of Pharmacy at its commencement exercises held in Carnegie Music Hall, Allegheny, March 29, conferred the degree of Ph. G. upon the following members of the graduating class:

Perry Linden Kerr, William Schuchmann, Wilbert Edward Corey, James Devan Thomas, Chas. David Aldenderfer, Theodore J. Hermann, Michael John Gross, John Reynolds Thompson, Charles John Kenah, Henry William Heckel, Henry August Spilker, Charles Adolph Schafer, George Scott Paisley, William Cannon Griffith, Edward F. Stephens, William Grant Young, William Thomas Gordon, Edward S. Allen, Robert W. Mackenzie, John A. Faessel.

Mr. Kerr took first honors, Messrs. Gross and Thompson second honors, and Mr. Faessel received the certificate of proficiency.

At a meeting of the college held Monday, March 26, the following officers were elected:

President, A. C. Robertson, vice-presidents, Louis Emanoel, Peter Weber; recording secretary, Louis Brehm; corresponding secretary, George W. Kutscher; curatorial secretary, Samuel Jamison; curator, J. A. Shaffer; librarian, T. F. Aschman.

MICHIGAN UNIVERSITY NOTES.

Shinichi Ando, Ph. C., '93, is chemist in charge of the Apollo Iron Works, Pa.

The Michigan Board of Health held a sanitary convention at Menominee April 5 and 6.

A. H. White, B. S., '93, has been appointed instructor in chemistry at Champlain University, Ills.

T. Griffen, Ph. C., '89, has been elected secretary of the Hoffman, Thompson Drug Co., successors to J. R. Hoffman & Co., Minneapolis. Mr. Griffen has charge of the recently equipped analytical laboratory which has been added to their manufacturing department.

Saccharin finds employment in disguising the taste of various fatty oils. The following for cod liver oil (Wiener Klinische Rund) has been suggested:

Saccharin	40 centigrams.
Acetic ether	2 grams.
Cod liver oil	100 grams.
Peppermint or cinnamon oil	q. s.

Dissolve the saccharin in the ether, and add the cod liver oil, little by little, with frequent agitations. Finally add the peppermint or cinnamon oil.

CORRESPONDENCE.

We accept no responsibility for the views and utterances of our correspondents. Contributions must carry full name and address of the writers, which, however, will not be published, if so requested. Copy should reach us ten days in advance of date of issue.

NEW YORK PAINT TRADE. A CORRECTION
To the Editor.

In a recent number of your esteemed journal I noticed an article on "Paint Trade Reorganized," and wish to correct what may be misleading to the paint trade throughout the country.

New York, for several years, has had a Paint, Oil and Varnish Club, with about seventy-five members of the paint, oil and varnish trade of New York City. A number of our membership were members of the New York Board of Trade and Transportation, and it was thought advantageous for us to form a paint, oil and varnish section of that board, which was done on the 20th of March last, and such members of our club as were members of the Board of Trade and Transportation are now the paint, oil and varnish section of that body. There was no reorganization. The officers of the section are: J. A. Elmendorf, of Edward Smith & Co., chairman; C. H. Patrick, of H. W. Johns Manufacturing Co., vice-chairman, and W. B. Templeton, of the Trade News Publishing Co., secretary and treasurer. The members of the executive committee are: Henry Merz, of Heller-Merz Co.; A. B. Garner, of Murphy Varnish Co.; R. Pyatt, of Rogers & Pyatt; William E. Lucas, George W. Portmayer, of the National Lead Co., and W. D. Eger, of A. B. Ansbacher & Co. The regular monthly meeting of the section is the first Tuesday in each month at 1:30 p. m. The object of the section is to add our influence to that of the Board of Trade and Transportation Company for all subjects that are for the good of trade in general. Our Paint, Oil and Varnish Club is entirely separate from this section. Yours very truly,

JOHN A. ELMENDORF.

LIQUOR SELLING IN MASSACHUSETTS.

To the Editor:

In your issue of April 1, pages 25 and 213, are rather startling statements regarding Massachusetts. The Board of Pharmacy of this state are required to make an annual report to the governor of the condition of pharmacy, and the statement in the Springfield Republican seems to the Board of Pharmacy to call for an investigation. Accordingly our agent was instructed to visit Westfield on account of a communication which appears in the Springfield Republican in regard to the liquor traffic carried on by the druggists in Westfield. Upon inspecting the town six stores made the complete quota in lawful condition. As regards the startling report referred to, the facts are these: Westfield voted no license last year, the result being sixteen rum shops closed up. Therefore, upon licensing the six druggists, their trade naturally increased at first, were they ever so careful. A committee comes around under the pretext of simply wishing to inform themselves in regard to the working of the license law. This was after the first week in July. Not knowing that the said committee was in the interests of the saloonkeepers, the druggists let them take

books containing the sales of liquor up to that time. After two days they were returned to them, and nothing more was heard of the matter until the communication of the Springfield Republican, which was prepared and kept for a campaign document, which was sprung by the friends of the saloons and served its purpose, as the election which took place this day shows the verdict, being Westfield's votes for license. The druggists' declaration was that for the year their sales had not increased 10 per cent, that for the first year of license the arrests for being drunk were 175, for the year of no license not quite 100. This is a verbatim copy from the March report of our agent, and is sent to you in justice to the druggists of Westfield, and, as we believe, a true statement of all the facts.

H. M. WHITNEY,

President of the Board of Registration in Pharmacy.

WHAT THE DRUGGIST MUST KNOW.

Wine ounce hourhoned 5 cents.

Abes tea

Katon

Eits mecel to rob in the had

Castl fist

Coterime to put in closet.

S. A. EPSTEIN,

Chelsea, Mass.

Poder of Pur Oxed Hiderjen

White charcoal

Come pound The Herish

10c Idas foom.

1 Pepsine plaster with holes.

Sulph of liver.

Tin of Lacerated food.

2 paks sticky tolet papur.

Strong Sulphate of zink with more zink than sulphur.

H. W. S. GOURLEY,

San Francisco, Cal.

Please give This boy wone of your Coff bottle to try and O-blyk Mr. D—.

This is not the salve that I want the other is a darke colour And I wonted for the Piles.

Have you any telfome If you have little for J. P. Graffery quick mie tle broother is sick very sick warming up. I want 5 Cents woth of Sascha powder helltrop.

Would you be so Obliged and let me gess the number or trochs In that quat bottle I know it is about 3000 In It I figered it last night

Bottle of Rough on Worms.

10 cents Black bltch

Sample bottle of Bochees Jerman Syrup.

2 bot Hagsn Maganol Bam.

4 bot Ayers hair remover.

10 cents bottle Vasselbon. for Me.

Docter arnold beisom.

Addason Cough Syrup.

Linsaed huael.

two setlers powders.

Balm et gille Buds 1 ouns.

for 5 cts vasaven.

5 cts woth of bromide for bighead.

Carbolick acide

Whit vitole

Sweet Leeds.

These aint the lit pills you sent me the doctor sed they would be Jacketed Pills and I could not taste them as soon as I bite them they are so bad I cant swallow them sent the rite one.

CHEEVER & WINSLOW,

Boston, Mass.

DIRECTORY OF PHARMACEUTICAL ASSOCIATIONS.

The name of the association is, in every case, followed by the name of the president, secretary, and, where known, date and place of next meeting, and the name of the local secretary.

Alabama.—Pres., E. P. Galt, Selma; Sec., P. C. Cnuddis, Mobile, 2nd Tuesday May, Anniston; sec., J. L. Wikie.

Arkansas.—Pres., G. N. Hart, Pine Bluff; Sec., J. W. Beldeiman, Little Rock; Hot Springs.

California.—Pres., John Devine, East Oakland; Sec., D. D. Hunt, San Francisco; 2nd Thursday November, San Francisco.

Colorado.—Pres., J. W. Turrell, Longmont; Sec., F. A. Lyneman, Denver.

Connecticut.—Pres., W. L. Mix, New Haven; Sec., Frederic Wilcox, Waterbury; Feb. 6 and 7, Hartford; sec., Thos. H. Shannon.

Delaware.—Pres., N. B. Danforth; Sec., Washington.

Florida.—Pres., T. S. Chalker, Lake City; Sec., W. H. Lightstone, Jacksonville; 3rd Wednesday May, Tampa; L. sec., S. B. Leonardi.

Georgia.—Pres., C. M. Crosby, Marietta; Sec., H. H. Arlington, Summerville; — America; L. sec., Lynn Fort, Americus.

Illinois.—Pres., Emil Thiele, Chicago; Sec., F. Fleury, Springfield; — Peoria.

Indiana.—Pres., John Kennedy, Vincennes; Sec., W. V. Stocker, Indianapolis; May —, Evansville.

Iowa.—Pres., M. B. Ward, Des Moines; Sec., Dr. Upson, Marshalltown; 2nd Tuesday March, Des Moines.

Kansas.—Pres., T. W. Atkins, Girard; Sec., Mrs. M. O. Miner, Hiawatha; May 29, 30, 31; Sallina; L. sec., Emil Arner.

Kentucky.—Pres., R. J. Snyder, Louisville; Sec., J. W. Gayle, Frankfort; May 16, Paris; L. sec., C. J. Clark.

Louisiana.—Pres., P. A. Capdau, New Orleans; Sec., Mrs. E. Rudolf, New Orleans; May 1, New Orleans; L. sec., S. L. Twitcheil.

Maine.—Pres., A. Warren, Bangor; Sec., G. A. Fowler, Portland.

Maryland.—Pres., C. V. Emlch, Baltimore; Sec., J. W. Gelzer, Baltimore; Nov. 10, Baltimore.

Massachusetts.—Pres., J. Allen Rice, Melford; Sec., M. L. H. Leavitt, Boston; Worcester.

Michigan.—Pres., A. B. Stevens, Ann Arbor; Sec., F. A. Thompson, Detroit.

Minnesota.—Pres., J. E. Stiles, St. Louis Park; Sec., C. T. Heller, St. Paul; June 12, Lake Minnetonka.

Mississippi.—Pres., H. R. West, Natchez; Sec., Carson Lemly, Jackson; May 9, Jackson.

Missouri.—Pres., W. Mittelbach, Boonville; Sec., H. M. Whelpley, St. Louis; June 12, 13, 14 and 15, Excelsior Springs; 1. sec., C. L. Cravens.

Montana.—Pres., H. M. Parchon, Helena; Sec., J. B. Lockwood, Helena; 2nd Tuesday Aug., Helena.

Nebraska.—Pres., C. R. Sherman, Omaha; Sec., W. L. Hellman, Tecumseh; June 5, Hastings; L. sec., Ed. W. Bexton.

New Hampshire.—Pres., A. S. Wetherell, Exeter; Sec., F. L. Way, Manchester.

New Jersey.—Pres., E. B. Jones, Mount Holly; Sec., W. C. Alpers, Bayonne; May 22 and 23, Asbury Park; L. sec., G. E. Williams.

New Mexico.—Pres., A. C. Ireland, Santa Fe; Sec., W. C. Porterfield, Silver City; Albuquerque; L. sec., Bernard Ruppe.

New York.—Pres., C. O. Rano, Buffalo; Sec., C. W. Holmes, Elmira; Saratoga; L. sec., C. F. Fish.

North Carolina.—Pres., N. D. Fetzter, Concord; Sec., F. W. Hancock, Oxford; 2nd Wednesday August, Asheville; L. sec., W. G. Smith.

North Dakota.—Pres., C. L. Meredith, Casselton; Sec., O. Granrud, Grand Forks; 1st Tuesday Aug., Grand Forks; L. sec., Robert Berg.

Ohio.—Pres., G. L. Hechler, Cleveland; Sec., L. C. Hopp, Cleveland; 1st Tuesday May, Cincinnati; I. sec., A. Wetterstrom.

Oklahoma.—Pres., F. E. Marion, Guthrie; Sec., Prof. De Barr, Norman.

Oregon.—Pres., L. G. Clarke, Portland; Sec., H. D. Dietrich, Portland.

Pennsylvania.—Pres., Wm. McIntyre, Philadelphia; Sec., J. A. Miller, Harrisburg; June 12, Neversink Mountain House; L. sec., J. B. Raser.

Rhode Island.—Pres., E. W. Oars, Niantic; Sec., Wm. E. Cates, Providence; Jan. 10.

South Carolina.—Pres., A. W. Eckel, Charleston; Sec., P. Wineman, Charleston; Nov. 16, Charleston.

South Dakota.—Pres., John McCain, Tripp; Sec., I. A. Keith, Lake Preston; Aug. 8, Huron; L. sec., D. K. Bryant.

Tennessee.—Pres., J. K. Burge, Nashville; Sec., W. Vickers, Murfreesboro; 3rd Wednesday May, Chattanooga.

Texas.—Pres., L. Myers Connor, Dallas; Sec., G. W. Hoyer, Houston; 2nd Tuesday May, Austin; L. sec., H. L. Carlton.

Utah.—Pres. S. P. Ash, Ogden; Sec., C. H. McCoy, Salt Lake City; 2nd Tuesday June, Provo.

Virginia.—Pres., J. F. Christian, Roanoke; Sec., C. B. Fleet, Lynchburg; 2nd Tuesday July, Blue Ridge Springs; W. B. Spickard.

Washington.—Pres., A. M. Doland, Spokane; Sec., Walter St. John, Tacoma; 3rd Monday May, Tacoma.

Wisconsin.—Pres., E. D. Pardee, Wausau; Sec., E. B. Helmstret, Janesville; 2nd Tuesday Aug., Racine; L. sec., Chas. Gressler.

American P. A.—Pres., E. L. Patch, Boston; 1st Monday Sept., Asheville, N. C.; L. sec., W. G. Smith.

N. W. D. A.—Pres., F. A. Faxton, Kansas City; Sec., A. B. Merriam, Minneapolis; Oct. 9, New York.

Mfrs. and Dealers Prop. Articles.—Pres., R. V. Pierce, Buffalo; Sec., Jos. Leeming, New York; New York.

I-S. Ret. D. L.—Pres., H. Canning, Boston, Mass.; Sec. Robert J. Frick, Louisville, Ky.

DIRECTORY OF BOARDS OF PHARMACY.

For full information, dates of meetings, etc., address the secretaries of the respective boards.

Alabama.—P. C. Candidus, Mobile, president; J. W. Milner, Florence; E. P. Gait, Selma, secretary.

Arizona.—Has no pharmacy law.

Arkansas.—J. M. Anderson, Pine Bluff, president; F. G. Kerr, Van Buren; W. L. Carr, Hot Springs; J. M. Colburn, Little Rock; W. W. Kerr, Russellville, secretary.

California.—S. H. Melvin, Oakland, president; J. H. F. Hart, Maryville; W. M. Searby, San Francisco; J. W. Wood, Pasadena; H. J. Finger, Santa Barbara; R. J. Van Voorhles, Sacramento; J. H. Dawson, San Francisco, secretary.

Colorado.—Chas. M. Ford, Denver, president; C. H. Wells, Pueblo; F. H. Arcularius, Colorado Springs, secretary.

Connecticut.—C. A. Rapelye, Hartford, president; J. H. Grannis, M. D., Saybrook; Henry M. Elshop, New Haven, secretary.

Delaware.—W. H. Cooper, Kenton, president; O. G. Robinson, —; J. H. Spruance, Wilmington; E. Hoffmann, Wilmington; C. D. Sypher, Dover, secretary.

District of Columbia.—D. W. Prentiss, president; F. G. C. Simms, I. T. Wenter; R. L. Elliot, Washington, secretary.

Florida.—J. D. Palmer, Monticello, president; H. C. Cushman, Pensacola; S. B. Leonard, Tampa; F. Clarke, Jacksonville; E. Delouet, Ocala, secretary.

Georgia.—J. W. Goodwyn, Macon, president; S. C. Durban, Augusta; H. Sharp, Atlanta; George F. Payne, Macon; H. R. Slack, Jr., La Grange, secretary.

Idaho.—Has a pharmacy law empowering each county to organize its own board.

Illinois.—T. N. Jamleson, president, Chicago; L. C. Hogan, vice-president, Englewood; H. H. Green, Bloomington; I. N. Coffee, Cairo; A. Zimmermann, Peoria; Frank Freury, secretary (not a member), Springfield.

Indiana.—Has no pharmacy law.

Iowa.—J. H. Mitchell, Bloomfield, president; F. Howard, Sheldon; J. H. Pickett, Oskaloosa; S. J. Spaulding, Des Moines.

Kansas.—F. E. Holliday, Topeka, president; J. T. Moore, Lawrence; W. C. Johnson, Manhattan; W. E. Sheriff, Ellsworth; H. W. Meh, Leavenworth, secretary.

Kentucky.—J. W. Fowler, Louisville, president; W. S. Johnson, Henderson; W. G. White, Richmond; E. Y. Johnson, Louisville; W. Rogers, Louisville, secretary.

Louisiana.—T. J. Labbe, St. Martinsville, president; P. L. Viallon, John Gazzo, R. T. Gibbs, L. F. Challin, F. C. Goibold, Wm. Graner, F. T. Royer; Walter T. Taylor, New Orleans, secretary.

Maine.—E. H. Thompson, Searbro Beach; N. C. Earl, Portland; F. R. Partridge, Augusta, secretary.

Maryland.—D. M. R. Culbreth, president; E. Barickson; J. F. Hancock, secretary. (Law applies to Baltimore alone.)

Massachusetts.—H. M. Whitney, Lawrence, president; J. Larrabee, Melrose; A. K. Tilden, Boston; J. A. Rice, West Adams; F. H. Butler, Lowell, secretary.

Michigan.—O. Eberbach, Ann Arbor, president; G. Gundrum, Ionia; C. A. Bugbee, Cheyboygan; F. W. R. Perry, Detroit; Stanley E. Parkill, Owosso, secretary.

Minnesota.—W. A. Frost, St. Paul, president; J. H. Salls, Lake Crystal; H. P. Barclay, Stillwater; W. S. Getty, St. Paul; H. G. Webster, Minneapolis, secretary.

Mississippi.—B. Lemly, Jackson, president; J. B. Small, Winona; J. M. Kimbrough, Meridian; J. W. Eckford, Aberdeen; J. C. Means, Natchez, secretary.

Missouri.—A. T. Fleischmann, Sedalia, president; A. R. Edmonds, Miami; F. W. Sennewald, St. Louis, secretary.

Montana.—Has no pharmacy law.

Nebraska.—J. Reed, Nebraska City, president; W. D. Haller, Blair; C. M. Clark, Friend; G. J. Evans, Hastings; M. E. Schultz, Beatrice, secretary.

Nevada.—Has no pharmacy law.

New Hampshire.—C. A. Tufts, Dover, president; E. H. Currier, Manchester; G. F. Underhill, Concord, secretary.

New Jersey.—W. R. Laird, Jersey City; A. Drescher, Newark; W. C. Alpers, Bayonne; G. W. C. Phillips, Jersey City; A. S. Elwell, Bridgeton, secretary.

New Mexico.—W. C. Porterfield, president, Silver City; E. G. Murphey, Las Vegas; C. M. Creamer, Santa Fe; E. W. Spencer, Albuquerque; J. L. Zimmermann, East Las Vegas, secretary.

New York.—A. B. Huested, Albany, president; C. H. Haskin, Rochester; F. L. Norton, Delhi; J. C. Smith, Plattsburg; E. S. Dawson, Jr., Syracuse, secretary.

North Carolina.—H. R. Horne, Fayetteville, president; W. H. Wearn, Charlotte; A. W. Rowland, Wilson; E. V. Zoeller, Tarboro; W. Simpson, Raleigh, secretary.

North Dakota.—H. E. White, Jamestown, president; H. L. Haussamen, Grafton; W. S. Parker, Libson, secretary.

Ohio.—F. T. Bower, Toledo, president; C. Krone, Hamilton; J. Meyer, Cincinnati; C. E. Ink, Columbiana; W. R. Ogier, Columbus, secretary.

Oklahoma.—A. F. Masterman, El Reno, president; J. M. Craig, Guthrie; C. P. Wickmiller, El Reno, secretary.

Oregon.—M. M. Davis, Yaquina City, president; A. A. Jones, Baker City; S. P. Gould, Pendleton; W. B. Welch, Portland; D. J. Fry, Salem, secretary.

Pennsylvania.—A. Robbins, Philadelphia, president; L. Emanuel, Pittsburg; A. J. Tafel, Philadelphia; A. B. Burns, Montrose; C. T. George, Harrisburg, secretary.

Rhode Island.—W. B. Blanding, Providence, president; W. E. Clarke, Providence; N. N. Mason, Providence; J. H. Taylor, Newport; A. B. Collins, Westerly; H. M. Dudley, Woonsocket; E. C. Danforth, Providence, secretary.

South Carolina.—E. S. Burnham, Charleston, president; A. A. Kroeg, Charleston; J. S. Duffie, Columbia; A. Memminger, J. Forrest, H. W. Hummel, Charleston, secretary.

South Dakota.—A. H. Stiles, Sioux Falls, president; C. F. Ayer, Howard; O. H. Tarbell, Watertown; I. A. Keith, Lake Preston, secretary.

Tennessee.—R. H. Gordon, Nashville, president; J. F. Voigt, Chattanooga, vice-president; A. A. Yeager, Knoxville; L. Laurensen, Memphis; J. O. Burge, Nashville.

Texas.—Has a separate board for each senatorial district.

Utah.—F. A. Druehl, Salt Lake City, president; W. A. Wade, Brigham City; F. B. Hurlbut, Ogden; H. S. Pyne, Provo; C. H. McCoy, Salt Lake City, secretary.

Vermont.—Has no pharmacy law.

Virginia.—C. B. Fleet, Lynchburg, president; C. A. Santos, Norfolk; T. Ashby Miller, Richmond; Robert Brydon, Danville; E. R. Beckwith, Petersburg, secretary.

Washington.—A. M. Stewart, Tacoma, president; C. F. Krum, Spokane; C. G. Snyder, Davenport; L. D. Collins, New Whatcom; W. H. T. Barnes, Seattle, secretary.

West Virginia.—O. P. Sydenstricker, Lewisburg, president; J. W. Brown, Charleston; G. W. Dudding, Hurricane; J. G. McLain, Wheeling, secretary.

Wisconsin.—J. Rosch, Menasha, president; H. C. Schranck, Milwaukee; C. R. Bechmann, Fountain City; H. O. Frank, Milwaukee; E. B. Helmstret, Jamesville, secretary.

Wyoming.—W. C. Wilson, Jr., Laramie, president; F. P. Shannon, Carson; A. R. Troxell, Cheyenne, secretary.

PATENTS, TRADE-MARKS AND DESIGNS.

From U. S. Patent Office Gazette.

PATENTS.

- 515,338—Gray Dye.—Adolf Israel and Karl Pathe, Elberfeld, Germany, assignors to the Farbenfabriken, vormals F. Bayer & Co., same place.
- 515,381—Brown Dye.—Moritz Ulrich, Johann Bammann and Martin Herzberg, Elberfeld, Germany, assignors to the Farbenfabriken, vormals Fr. Bayer & Co., same place.
- 515,412—Cork-Puller.—Edwin Walker, Erie, Pa.
- 515,413—Distilling Apparatus.—Frank E. Wallace, East Orange, N. J.
- 515,473—Device for Closing Bottles.—Richard Herz, Vienna, Austria-Hungary.
- 515,504—Atomizer.—John H. Scharlink, Newark, N. J.
- 515,556—Bottle-Washer.—William J. Smeatlie, Amsterdam, N. Y.
- 515,559—Display-Counter.—William L. Sontak and Robert A. Brennan, Evansville, Ind.
- 515,597—Toilet Vaporizing Apparatus for the Complexion.—Bottle H. Owens, Denver, Colo.
- 515,605—Bottle-Stopper.—Albert Stutzer and Julius Schafer, Bonn, Germany.
- 515,700—Germ-Proof Filter.—Algeron L. Wilkinson, Sr., Richmond, Va.
- 515,705—Hypodermic Syringe.—John W. Dally, Boston, Mass.
- 515,721—Bottle-Wrapper.—Theodore F. W. Schmidt, Dayton, Ohio, assignor to one-half to the Dayton Paper Novelty Company, same place.
- 515,764—Red Azo Dye.—Arthur G. Green, London, England, assignor to Brooke, Simpson & Spiller, Limited, same place.
- 515,889—Process of and Apparatus for Distilling and Refining Volatile Substances and Essential Oils.—Albert M. Todd, Kalamazoo, Mich.
- 515,894—Filtering Apparatus.—Wilhelm Balz, Plouheim, Germany.
- 515,895—Process of Making Alumina.—Karl J. Bayer, Elabuga, Russia.
- 515,897—Polyzazo Dye.—Johann J. Brack, Basle, Switzerland, assignor to L. Durand, Huguenin & Co., St. Pons, France; Basle, Switzerland, and Hueningen, Germany.
- 515,909—Art of Manufacturing Ammonia.—Hans A. Frasch, Cleveland, Ohio.
- 515,930—Bottle-Sealing Device.—George A. Boyden, Mount Washington, Md.
- 516,075—Process of Making Soda Crystals.—Herbert R. Browne, Cadesthead, assignor to himself and Malcolm Guthrie, Liverpool, England.
- 516,235—Toilet-Paper Holder.—Allen N. Spooner, Jersey City, N. J.
- 516,238—Suspensory Pouch.—Aleck Bauer and Theodore W. Heinemann, Chicago, Ill.
- 516,338—Phenol-Bismuth Compound.—Bruno R. Seifert, Radebuhl, Germany, assignor to Dr. F. von Heyden, Nachfolger, same place.
- 516,401—Inhaler.—Theophilus G. H. Nicholson, Liverpool, England.
- 516,448—Inhaler.—William H. Russell, New York City, and Harvey C. Earl, New York, N. Y.
- 516,590—Apparatus for Carbonating Liquids.—Charles F. A. Convert, Chicago, Ill.
- 516,708—Oil-Purifying Apparatus.—Charles H. Freyer, London, England.

516,707—Paratolydimethylpyrazolone.—Ludwig Knorr, Jena, assignor to the Farbwerke, vormals, Meister, Lucius & Brunling, Hoechst-on-the-Main, Germany.

516,752—Diamido Base.—Johann J. Brack, Basle, Switzerland, assignor to L. Durand, Huguenin & Co., St. Pons, France; Basle, Switzerland, and Hueningen, Germany.

516,753—Diamido Base.—Johann J. Brack, Basle, Switzerland, assignor to L. Durand, Huguenin & Co., St. Pons, France; Basle, Switzerland, and Hueningen, Germany.

516,754—Diamido Base.—Johann J. Brack, Basle, Switzerland, assignor to L. Durand, Huguenin & Co., St. Pons, France; Basle, Switzerland, and Hueningen, Germany.

516,755—Diamido Base.—Johann J. Brack, Basle, Switzerland, assignor to L. Durand, Huguenin & Co., St. Pons, France; Basle, Switzerland, and Hueningen, Germany.

516,756—Red Tetrazo Dye.—Johann J. Brack, Basle, Switzerland, assignor to L. Durand, Huguenin & Co., St. Pons, France; Basle, Switzerland, and Hueningen, Germany.

516,757—Blue Tetrazo Dye.—Johann J. Brack, Basle, Switzerland, assignor to L. Durand, Huguenin & Co., St. Pons, France; Basle, Switzerland, and Hueningen, Germany.

516,758—Blue Tetrazo Dye.—Johann J. Brack, Basle, Switzerland, assignor to L. Durand, Huguenin & Co., St. Pons, France; Basle, Switzerland, and Hueningen, Germany.

516,759—Red Tetrazo Dye.—Johann J. Brack, Basle, Switzerland, assignor to L. Durand, Huguenin & Co., St. Pons, France; Basle, Switzerland, and Hueningen, Germany.

516,760—Blue Tetrazo Dye.—Johann J. Brack, Basle, Switzerland, assignor to L. Durand, Huguenin & Co., St. Pons, France; Basle, Switzerland, and Hueningen, Germany.

516,766—Process of Making Ether.—Friedrich Kraft and Alfred Roos, Heidelberg, Germany.

516,811—Inhaling Apparatus.—Wilhelm Scheerer, Tuttingen, Germany.

516,812—Speculum.—Wilhelm Scheerer, Tuttingen, Germany.

517,073—Micrometer-Callipers.—John D. Sloane, St. Paul, Minn., assignor to Gertrude Duval Sloane, same place.

517,068—Process of Making Concentrated Nitric Acid.—Hans A. Frasch, Cleveland, Ohio, assignor to the Grassell Chemical Company, same place.

Expired February 27, 1894.

187,751.—Apparatus for Recovering Waste Alkalies.—J. W. Dixon, Philadelphia, Pa.

187,802—Disinfecting Compounds.—H. J. Bang, New York, N. Y.

187,855—Fluid Meats.—John L. Johnstone, Sherbrooke, Quebec, Canada.

187,881—Apparatus and Processes for Manufacturing Purified Saccharine Solutions.—A. Maubres, Penze, England.

187,897—Stove Polish.—D. W. Parker, Cambridge, Mass.

Expired March 6, 1894.

187,956—Compositions for Preserving.—C. G. Am Ende, Hoboken, N. J.

188,217—Process of Making Dyes From Naphthaline.—Justus Wolff, Wyke, near Bradford, and Ralph Betley, Wigan, England.

Expired March 13, 1894.

188,226—Pomade.—Mack Culbertson, Lake City, Minn.

188,271—Filters.—Geo. W. Woolsey, Toledo, Ohio.

Expired March 27, 1894.

188,891—Apparatus for Manufacturing Hydrated Sulphurous Acid.—W. Davidson Jones, Hazarman's Mills, N. Y., assignor of one-half his right to H. H. Pawling, same place.

189,065—Machines for Making Pills, Lozenges, Etc.—T. J. Young, Philadelphia, Pa., assignor to H. Bowser, same place.

Belows.

7,529—Processes of Purifying Paraffine Wax.—E. N. Byerly, Cleveland, Ohio.

TRADE MARKS.

24,277—Dye Stuffs.—L. Durand, Huguenin & Co., Basle, Switzerland. The word "Gallazine."

24,280—Liniment for External and Internal Use.—Joseph Miles Vost, Charles F. Green, and Frank C. Houck, Williamsport, Pa.

24,281—Natural Mineral Water.—Stafford Mineral Springs and Hotel Company, Limited, New Orleans, La. The representation of a heart having a band across it and the word "Ho-Go-Ha-Ma" on the band.

24,283—Castile Soap.—California Olive Oil Soap Company, New York, N. Y. The representation of an olive tree.

24,284—Shaving Soap.—The J. B. Williams Company, Glastonbury, Conn. The words "Travelers' Favorite."

24,285—Shaving Soap.—The J. B. Williams Company, Glastonbury, Conn. The word "Luxury."

24,286—Toilet Soap.—The J. B. Williams Company, Glastonbury, Conn. The words "White Cross."

24,287—Face Powder.—Henry Tetlow, Philadelphia, Pa. The word "Gossamer."

24,312—Mineral Spring Water.—The Lenape Springs Company, Philadelphia, Pa. The word "Lenape" and the representation of an Indian chief.

24,313—Tonic.—Hazzard, Hazzard & Company, New York, N. Y., and Newport, R. I. The words "Mensman's Peptonized Beef Tonic."

23,314—Witch Hazel Distillate.—Connecticut Witch Hazel Company, Chester, Conn. The words "Hazel Bloom."

24,315—Pharmaceutical Product.—L. Durand, Huguenin & Co., Basle, Switzerland. The word "Gallanol."

24,316—Pharmaceutical Product.—L. Durand, Huguenin & Co., Basle, Switzerland. The word "Galloborol."

24,317—Chemical Compound for Medicinal Purposes.—The New York and London Alkaloid and Chemical Company, New York, N. Y. The word "Quinophen."

24,318—Remedy for Coughs, Colds, Consumption and Other Diseases of the Throat and Lungs.—Edward H. Fienhold, Philadelphia, Pa. The word "Murdoleum."

24,319—Remedy for Indigestion, Dyspepsia and Similar Affections.—Finley R. Butterfield, Concord, N. H. The representation of a Puritan maiden and the word "Puritana."

24,320—Remedies for Diseases of the Stomach and Bowels.—Sultan Drug Company, St. Louis, Mo. The word "Seng."

24,321—Preparation for Female Diseases Done up in a Ball and Wrapped in Tin Foil.—Caroline E. Langworthy, Greenwich, N. Y. The word "Sachets."

TRADE COMMENT.

The olive oil production of California is estimated at 12,000 gallons for 1892, and the importations into the United States during the same period were 706,486 gallons.

A steel casting trust has been formed for the purpose of reducing (?) the price of steel castings to the consumer. The promoters of the enterprise also say that it isn't a trust, anyway—it's simply an organization.

The Iowa House of Representatives has passed a bill prohibiting the coloring of imitation butter with yellow coloring matter. This is apparently in line with similar legislation in another state requiring such products to be colored pink.

A Bordeaux (France) pharmacist, upon joining the ranks of the cutters, adulterated his wares to correspond with the cut in prices. He is now spending his time in prison, and at the expiration of his two-years' sentence will undoubtedly have different views upon the cut-rate evil.

It is announced that the Sulphur Mines Company, of Virginia, the Atlantic & Virginia Fertilizer Company, of Richmond, Va., and the Monumental Chemical Company, of Baltimore, have consolidated, and the combined business will be conducted by the first named company.

Up to the middle of March the season's production of cod liver oil at the Lofoden Islands amounted to about 5,000 hectoliters of refined oil, against 12,800 hectoliters last year. As the season is now at a close, there is no possible means of making up the deficit.

Count Orloff-Davidoff has offered a prize of \$5,000 to be awarded in 1899 by the Imperial Institute of Experimental Medicine of St. Petersburg, Russia, for a certain remedy or protection against the cattle plague, which every year causes such great mortality among the herds of that country.

What is apparently a blow aimed at the methods of several corporations is a bill lately introduced in the New York Senate by Senator Collins, compelling corporations which issue rebate vouchers to deposit in New York banks such sums as shall equal in amount the said rebate vouchers or certificates.

A simple relief for writer's cramp is suggested by Langes (Munich Med. Wochenschr.), who directs that the pen be held between the second and third fingers in such a way that the holder rests upon the latter at an angle of from 110 to 125 degrees, while it is supported below by the thumb, the index finger resting lightly above.

The Supreme Court of Georgia held, in the recent case of Briscoe et al. vs. Montgomery et al., that a "commercial traveler" whose business is to travel and sell goods for his employer, though employed and paid for his services by the day, is not a "day laborer" in the sense in which the words are used in section 3554 of the Georgia code, and that his wages are not exempt from the process of garnishment.

Judge Grosscup handed down a decision at Chicago on March 5 in the patent suit of the American Soda Fountain Co. vs. Hart Manufacturing Co. in favor of the latter firm.

That there are two strong sides to every question wherever there is more than one interest involved is pointed out by Henry Lyman in a recent communication to the Montreal Pharmaceutical Journal. The newspapers of Ottawa have been bringing some pressure to bear upon the Canadian government, with a view of reducing the protective tariff, which the Dominion now has in force, upon the plea that it lessened the sale of goods from the United States and thus lessened the income of the newspapers from advertising. Mr. Lyman, from a Canadian point of view, points out the benefits derived from the necessity which compels many prominent houses of this country to equip and maintain in Canada branch establishments, involving large outlay for buildings, wares, etc., thus conferring a direct benefit upon the citizens of that country. Surely the losses of Peter are the wages of Paul.

The German Apotheker-Verein is now having a chance to demonstrate its usefulness by combating a bill which was lately introduced by a cabinet officer in the Prussian Chamber of Deputies for the purpose of abolishing the present system by which the number of pharmacies is made to bear a certain ratio to the population. This system, while regarded with favor by pharmacists both in Germany and other countries as a means of enabling the pharmacist to elevate the professional aspect of his calling by doing away, to a certain extent, with the evils following unrestricted competition, is denounced by the author of the bill as a method which fosters favoritism of the grossest kind and has led to the most notorious speculations in concessions. As this system has so long been held up to the American pharmacist as an ideal one, the outcome of this movement against it will be awaited with considerable interest.

The world's supply of crude phosphate and guano, as given in the best official sources, is as follows: South Carolina, 560,000 tons; Florida, 425,000 tons; Belgium, 400,000 tons; France, 400,000 tons; West Indies, guano, 30,000 tons; South America, guano, 45,000 tons; Russia, 70,000 tons; Germany, 50,000 tons; Spain, 40,000 tons; England, 30,000 tons; Canada, 15,000 tons; Norway, 20,000 tons, and North Carolina, 2,000 tons; total, 2,087,000.

The world's consumption of commercial manures is as follows: United States, 1,225,000 tons; France, 1,000,000 tons; Germany, 1,445,000 tons; Great Britain, 1,600,000 tons; other European countries, 800,000 tons; total, 5,470,000 tons. The consumption in Germany of the various kinds of fertilizers is given as: Acid phosphates, 500,000 tons; slag, 250,000 tons; bone meal, 70,000 tons; sulphate of ammonia, 50,000 tons; potash salts, 220,000 tons; nitrate of soda, 250,000 tons; precipitated phosphates, 5,000 tons; total, 1,445,000 tons.

Massachusetts legislators are struggling with a bill which imposes a penalty of \$500 on anyone who shall paint on any building, other than that in which the business is being conducted, any patent medicine or other advertisement in which the letters or characters are more than six inches in length or four inches wide. The bill is intended as a prevention against the disfigurement of rural scenery.

Lieut. Elsdale, an English writer, enumerates the following as important problems which will probably approach solution during this generation or the next: (1) Aerial navigation, which, at the rate of progress of the last fifteen years, may be confidently counted as an accomplished fact within a like period in the future; (2) the diminution of the waste power due to surface friction of vessels; (3) the direct conversion of coal into electricity; (4) the reduction of vegetable food, now suited only to domestic animals to a condition fitted for the human palate and digestion. To these might be added changes in our social conditions to which the present state of unrest seems most certainly to point. The subjects of finance and taxation even in the light of history are receiving an amount of attention such as they never received before. The "tendency of the times" is losing its application as a mere phrase to explain conditions not fully understood, as is shown by the continual inquiry as to why things are tending in certain directions. The chemist, electrician and political economist now have their hands full; their ranks are not really crowded, and there is no prospect of their joining the forces of the unemployed for at least several centuries to come.

Up to the present time it has generally been accepted that the biblical manna was identical with a substance that oozes out of the tamarisk branches near Mt. Sinai. This has recently been denied by L. Errera, who, at the instigation of the Belgian Academy, undertook an examination of the "Bread of Heaven," which, in 1890, fell near Diabekir. In May of that year Diabekir and the region of the upper Tigris experienced a terrible storm, during which in addition to heavy hail, a thick coating of an edible substance also fell upon the ground. The latter had happened in this neighborhood before, and was called by the Kurds "Bread of Heaven." Baked with flour, they were accustomed to it. The consul at Aleppo sent specimens of this find to the Ministerium at Brussels, and these entrusted Errera with the microscopical examination of the substance. It turned out to be a kind of lichen (*Lecanora eulenta*), which is found, also, in Persia, Palestine and Algiers, and sometimes covers the ground to height of fifteen to twenty centimeters. The substance examined was of a light brown color, chemical analysis showed that it contained but little nutritive qualities. Errera is fully convinced that this "Bread of Heaven" is the manna of the Bible, mentioned in Num. 11, 8.—Independent.

INDUSTRIES OF THE U. S.

The extra Census Bulletin, No. 67, issued March 15, 1894, presents for each state and territory of the United States the statistics concerning all classes of mechanical and manufacturing industries as reported in the eleventh census. The tabular statements include only establishments which reported a product of \$500 or more in value during the census year ending May 31, 1890, and the figures can therefore be regarded as only approximate. The comparative estimates are based upon 322,624 establishments reporting in 1880, against 253,502 in 1890, an increase of 27.27 per cent. The figures for 1890 shows capital invested \$6,138,716,694, against \$2,789,766,886 in 1880, an increase of 120.76 per cent; total wages, 1890, \$2,171,586,919, against \$929,462,256 in 1880, an increase of 131.13 per cent. The total number of employes are given as 4,476,091 in 1890, and 2,790,732 in 1880, an increase of 63.71 per cent. The value of products amounted to \$9,654,435,337 in 1890, against \$5,349,191,458 in 1880, an increase of 89.27 per cent. The latter figures cannot be taken as indicating the correct contribution to the wealth of the country, as the products of one industry very frequently become the raw material for another, this being continued through several processes of manufacture. The table arranged in the alphabetical order of the various industries shows 563 chemical establishments reporting with an aggregate capital of \$55,022,452, employing 16,552 people, paying wages to the amount of \$9,691,813, using materials costing \$33,894,357, and turning out products valued at \$39,352,548. In the chocolate and cocoa business, 11 establishments reported with a capital of \$2,630,607, employing 663 people, paying wages amounting to \$396,694, using material costing \$2,892,219, and producing goods valued at \$4,221,675. Sixty-five establishments reported in the cork-cutting industry, having a total capital of \$1,829,360, employing 2,138 people, paying wages amounting to \$762,518, using material worth \$1,501,962, and turning out product valued at \$2,840,359. In the manufacture of druggists' preparations, not including prescriptions, 1,805 establishments with an aggregate capital of \$4,624,814 are reported. They employ 3,949 people, paying wages amounting to \$1,938,790, and turned material worth \$2,411,851 into products worth \$6,659,797. Thirteen drug-grinding establishments, with a capital of \$337,883, and 173 employes, receiving wages amounting to \$103,594, are reported as converting \$192,321 worth of material into \$466,796 worth of finished product. The dye stuffs and extract industry shows 60 establishments with capital of \$8,590,096, employes 2,227, wages \$1,275,649, material \$8,819,498, product \$19,114,714. Patent medicines and compounds show 1,127 establishments, capital \$18,596,823, employes 9,380, wages \$5,094,292, raw material \$11,030,916, finished product \$22,620,182. Perfumery and cosmetics show 157 establishments, capital \$2,238,501, employes 1,755, wages \$877,679, raw material \$2,128,420, finished product \$4,620,141. The soda water apparatus business shows 12 establishments, capital \$3,354,928, employes 593, wages \$728,121, raw material \$1,016,292, finished product \$2,711,879. Caster oil has 7 establishments reporting, capital \$621,798, employes 101, wages \$70,131, material \$431,231, product \$573,963. Essential oils, 67 establishments, capital \$102,222, employes 220, wages \$37,492, material \$129,735, product

\$25,847. Linseed oil, 62 establishments, capital \$14,063,358, employes 2,073, wages, \$1,286,062, raw material \$19,374,543, product \$23,534,396. Cottonseed oil and cake, 119 establishments, capital \$12,808,996, employes 6,301, wages \$1,507,827, material, \$11,363,126, product \$19,335,947. Although the drug and chemical trade can take considerable interest in these figures, and the aggregate amounts are not so large as to be hard of comprehension, yet there are other figures in these tables which show what an enormous amount of wealth it requires for a year's existence by the people of the United States. For instance, the meat production amounted to \$661,656,925; flour and grist mill products to \$513,571,471; clothing, \$503,258,556; boots and shoes, \$273,893,498; iron and steel, \$430,954,348; cotton goods, hosiery, etc., \$335,222,737.

POTATO WINE.

About six years ago attention was called to the fact that an attempt was being made by an ingenious English chemist to manufacture so-called wine from the ordinary potato. That the project did not receive the amount of success that its designer anticipated may be inferred from the silence that has since reigned as to its merits. We now hear, says an English exchange, that the mantle of the aforesaid inventor has fallen upon the shoulders of a Frenchman named Moutine, who claims to have found out a process by which a pleasant beverage of a wine character, can be made out of a combination of malt and potatoes, the cost of which only reaches the modest price of 11-24 per gallon. We regret that we have not yet had an opportunity of tasting the seductive fluid in question, and, therefore, are unable to give an opinion as to whether or not it is dear at the price. Nevertheless, we have been favored by a correspondent with the receipt for its manufacture, and this we place at the disposal of our readers.

"First grind the potato and then press it well to remove every drop of water, by which means other substances, which might infuse a bitter taste to the beverage, are also got rid of. The remaining starch, in combination with malt, produces grape-sugar. The must, secured by the reaction of the malt, is filtered and transferred by steam and high pressure to a special boiling apparatus, invented by Moutine, and used by him for the fermentation of all beverages. The temperature is raised under pressure to 130 to 150 degrees, and kills all fermenting matters; the albumen coagulates, and the grape-sugar becomes a kind of caramel, which gives an agreeable taste to the drink. The boiling process at five to six atmospheres finished, the temperature is reduced to 25 degrees, and the fermentation is produced by lees of wine."

Should this beverage eventually come into consumption among the peasantry of France, it will afford one more shock to the delicate susceptibilities of Sir Wilfred Lawson & Co., who will henceforth have to regard the potato and vine with equal aversion.

The business of Dr. J. A. Deane & Co., manufacturers of Dr. Deane's Dyspepsia Pills, Kingston, N. Y., has been incorporated under the name of the Dr. J. A. Deane Co. The office will continue as heretofore at Kingston, N. Y.

GERMAN EXPORT UNIONS.

The first factor in helping to secure foreign markets for German manufactures, apart from the almost absolute necessity of having such markets, is the great interest taken, even by inland cities, to secure foreign trade.

All over the empire are societies organized to encourage colonization and export trade. These unions are active agents in helping to extend foreign markets. Their methods are simple, and thus far have been very successful. They are endorsed by the press, authorities and people.

They project all kinds of schemes for bringing German wares to the notice of foreigners. Emigrants and Germans resident in foreign countries are enlisted in favor of German products. The Saxon Export Union has opened a permanent sample exhibit of German wares in Bulgaria. The almanacs published and circulated contain hundreds of names of German firms, with illustrations of their products. The purpose is to keep the Bulgarians posted as to Germany's ability to supply every possible need in the way of manufactures. Since its organization in 1887 the union has spent \$25,800 for traveling agents, etc. It has sent out 135,000 printed circulars and 94,000 letters of correspondence. In return it has received 7,000 sample orders, amounting to \$1,071,000.

To illustrate German energy in seeking foreign trade, we have only to take Russia during the strained relations of the past nine months. In drugs, iron, machinery, leather, silk and woolen goods Germany has beaten her last year's record by \$11,424,000. This has been done during a time of business depression, when the press was pouring out complaints about the backwardness of business, the stopping of factories, etc.; at a time, too, when a tariff war was being waged between the two empires. Especially worthy of note is the fact that Russia took from Germany during the first nine months of 1892 in machinery alone \$21,919,800 worth, against \$30,801,200 during the same period in 1891. This in face of the fact that Russia's import duties on German goods have gone up 50 per cent, giving England, the United States and Austria a tremendous advantage.

A German correspondent in St. Petersburg writes his paper in Chemnitz to tell his people how the thing has been done:

"In spite of differential duties, in spite of the activity of our rivals and competitors, Germany has sold her machinery because (1) of her credit system and (2) because her agents and exhibitors beat those of all other nations. We are the only people that seem never to tire of giving the Russians credit. In a country poor in capital but vast in undeveloped resources this fact settles it. It is the weak and, at the same time, the strong side of our export of foreign trade. Against the millions made are millions lost. The conservative German, alongside of the cautious Frenchman and often as cautious Englishman, risks, wins and remains in markets where his rivals offer for cash much cheaper than he can on credit. In countries like Russia credit plays as important a part as, if not a more important part, than price. Here, as elsewhere, only the rich can buy cheap."

The German possesses the faculty and power to put himself in the other man's

place; to understand his conditions and circumstances; to find out, if not feel, his needs. So great is his power in this respect that he has absolutely no rival or competitor worth considering. Not only does he study the language of the people among whom he is to work, but he makes a speciality of it and of their agricultural and industrial needs. When selling needles and pins, he may be watching where to sell a knitting machine or a plow. Not only this, but his education fits him to tell the buyer what is best suited to certain kinds of work, especially where it is a question of introducing anything new. It is a notorious fact that the Russian farmer buys from a German in preference to an Englishman, an American or even a Russian manufacturer. The German language, after Russian, is the most used in business circles, partly because there are so many Germans settled in Russia and partly because of proximity. Again, the German not only seeks to find out what the people want, but he sells machines and parts of machines, so that when injured or broken they may be easily and at once repaired—a very great consideration. German agents and traveling salesmen are willing to work hard to sell small quantities. This makes them popular among the people to whom they are sent and satisfactory to their employers."

For so old a country the progress of the last twenty years seems incredible. The impulses of her unions, the energy of her agents, the patriotism of her people, the co-operation of her governments, the education furnished by her schools, the excellence of her products, the faithfulness with which orders are filled and the wisdom with which each people's wishes are met, are only a few of the many factors that make the empire rich, prosperous and progressive. The nation's interest in foreign trade is intense. The newspapers teem with all kinds of information regarding it. Not a day passes that a consul could not find information valuable to our merchants and manufacturers. On my table at this moment are editorials out of the local papers covering the empire's commerce with many foreign countries. I pick up one at random—Puerto Rico.

Puerto Rico bought last year 157 tons of linen and cotton goods, worth \$38,343.35. Of this quantity England sent 61, the United States 47, Spain 24 and Germany, France and Italy together 19 tons. Of chemicals, a very costly commodity, Germany sent 10, France 29, Spain 14, the United States 14, England 7 and Belgium 3 tons. Of paraffin and stearin, Germany sent 43, Spain 135 and England 10 tons. Of writing and printing paper, Spain sent 107, England 23, the United States 21, Germany 18 and France 12 tons. Of straw and packing paper the United States sent 476, Spain 178, Germany 18 and England and France together 7 tons. Germany sent 100,000 cubic feet of building lumber. Spain sent almost all the shoes used—21½ tons (Germany sent 10 tons). Railroad materials were taken mostly from Belgium—2,187 tons (Germany supplied only 120 and England 5 tons).—United States Consular Report.

The gold production of the world for 1893 was \$150,000,000; that of 1892 was \$138,860,000.

MALAYAN ARROW POISONS.

Last year Ralph Stockman contributed to *Pharm. Jour.* a short account of the physiological action of an arrow poison used by the natives of Perak. Since that time he has been enabled to work upon larger quantities, and in a recent contribution to that journal gives the results of more extended investigation.

"The poison is made by the natives from the root-bark of three trees, the extracts being either mixed or used singly to smear on the arrow-heads. By the natives the poisons are known as "Ipoh-aker," "aker-lampung," and "prual," respectively. I have examined the physiological action of alcoholic and watery extracts, made from the bark and wood of the trees from which the poisons are derived, and find that these all possess toxic effects.

Ipoh-aker.—This is obtained from a species of *strychnos*, as yet unidentified. My few previous experiments led me to conclude that the extract from the bark killed by an action on the heart similar to that of digitalis. Further experiments on rabbits confirmed these results, namely, that the animals died rapidly after subcutaneous administration of a large dose, from its effects on the heart, and that the motor nerves remained excitable to electric stimulation for some time after death. I find, however, that in addition there is a well marked curare-like action which is more easily observed in frogs than in rabbits. In the former animals the terminations of the motor nerves are readily seen to be either partially or completely paralyzed, in addition to the digitalis action on the heart.

Extracts made from the wood were very much less toxic than those from the bark. Large doses were required to cause death, and it took place slowly and gradually, and from paralysis of motor nerves in rabbits, not from cardiac paralysis. Both in rabbits and frogs, however, the effects on the heart were quite distinct.

The combined action on the heart and motor nerves is by no means a new observation in plants of the genus *strychnos*. As is well known, curare is obtained from *strychnos* species, and several observers in experimenting with curare have seen and described an action on the heart as well as on the motor nerves. In 1886, Bohm isolated two alkaloids from curare, which he named curine and curarine, and Tillie has shown that the former has a digitalis-like action on the heart, while it is the latter which paralyzed the motor nerves. It is therefore in the highest degree probable that ipoh-aker, derived from a species of *strychnos*, also contains two active principles having these different actions. The bark evidently contains more of the cardiac poison, in proportion to the nerve poison, than the wood does.

Aker-lampung.—This is also obtained from an unknown species of *strychnos*, but it does not seem to be very toxic; at least the specimen which I examined must either have contained very little of the active principles, or the latter may have become partially decomposed in making the extracts. From the roots sent me 40 grammes of bark was obtained, and this was thoroughly exhausted with rectified spirit; on evaporating the alcohol 1 gramme of dry extract remained. A half of this (20 grammes bark) dissolved in a little alcohol was given subcutaneously.

the heart was slowed and passed through certain phases as if poisoned by digitalis, ultimately stopping with the ventricle in extreme systole. In some cases the motor nerves were also completely paralyzed. So that here, also, we have most probable, as in curare and ipoh-aker, two distinct active principles, the one acting on the heart muscle, and the other on the terminations of motor nerves.

A watery extract from the wood of the root showed the same actions, although very large doses were necessary to cause death.

Prual.—The botanical source of this poison is unknown. I had only a very small quantity of the bark to work with, and made from it an alcoholic extract. When this was given subcutaneously to frogs in a little water, the muscles at the point of injection became almost immediately quite stiff, and there occurred a considerable subcutaneous extravasation of blood. On removing the skin the blood escaped and the muscles in the neighborhood were found to be white, dead, and non-responsive to electrical stimulation. The nerves and muscles elsewhere were found to be quite normal. When a very large dose was given the animal collapsed almost at once, and the heart stopped in diastole. In rabbits no general symptoms were observed, but at the point of subcutaneous injection there was always some extravasated blood and stiffness of the muscles. A watery extract from the wood gave similar results. Apparently its action as an arrow poison consists in disabement of the muscles where the animal is struck.

The mixture of all three substances is no doubt excellently adapted for use as an arrow poison. As I pointed out in my previous paper, its action is different from that of antiarin, or strychnine, or any arrow poison from the same district hitherto described."

Eight millions of the human race use coca. The plant grows in the hot, moist eastern valleys of the Andes, and is mostly cultivated in terrace gardens, often not more than eight or ten feet wide, and of which sometimes as many as 100 are placed one above the other on the mountain slope. The plant is from four to six feet high. It is raised from seed sown in December or January, at the beginning of the rainy season, which continues until April. In the following year the plants are transferred to specially prepared ground, and at the age of 18 months the first harvest, "quita calzon," is gathered. The plants continue to yield for about forty years, three or four crops being gathered each year. The largest crop is in March, after the rains; the smallest at the end of June. The leaves are called "matu" when green, and only acquire the name "coca" after drying, which is done in the sun with great care. The internal trade of coca in South America has always been very large; at the end of the eighteenth century its value in the Peruvian vicerealty was reckoned at over \$2,500,000. In South America it is generally considered that the coca leaf can be kept for five months, after which it loses its flavor.—*Chemist and Druggist*.

The correct medical name for the "grippo" is *Myxioletema*.



Warehouse, Chester, Conn.

THE CONNECTICUT WITCH HAZEL CO.

The Connecticut Witch Hazel Company is a Connecticut corporation organized in May, 1893, with its principal office at Chester, Ct., and a branch office at 132 Nassau street, New York. The plant of the company consists of three distilleries and one warehouse, situated in the towns of Chester, Haddam and Killingworth. The plant and warehouse of the company being only some three and a half hours' ride from New York. It is an easy and a pleasant task for one who is interested in witch hazel to make a trip of inspection to their properties by leaving on one of the special Boston trains, which make the run to New Haven without stop, the second stop being Saybrook Junction, where a change is made to the local train running up the valley road to Chester, some nine miles distant. Arriving at Chester, the first thing that will strike the eye of the visitor is the large warehouse near the depot, as shown by the illustration, a building 128 feet in length by 50 in width, with two Ls. for the use of the boiler and engine. This building, which is used entirely for the inspection, handling, storage and bottling of the company's goods, is well situated for freight facilities, having its own wharf on the Connecticut river, and shipping platforms extend from the building direct out to the railroad tracks.

This property was purchased to provide at some central point a system of checks in the manufacture of "Hazel Bloom," so that it would be impossible for any careless work or change of grade to be made in the product shipped under the company's brand. The product from the three distilleries is received at this warehouse. The company does its own trans-

portation, as a safeguard against practices similar to those sometimes alleged against certain milkmen who visit the town pump. As the witch hazel product is nothing more or less than a water distillate, it would be a comparatively easy matter, with proper arrangements, for the bulk of the goods to materially increase in transportation if they were allowed to go out of the company's hands.

The first care in the handling of the product is the cleansing and steaming of the barrels. Herein lies a great secret, as nine-tenths of the possible trouble with witch hazel product comes from the use of impure packages and careless work at the distilleries. To provide against any such possible trouble, the necessary number of barrels are prepared and set aside for the truckmen each day, and a special set of trucks is used for this purpose, which are taken to each one of the mills one day and filled and returned the next, the company never allowing any accumulations of packages at the distilleries.

Arriving at the warehouse, the barrels are hoisted to the third story, as shown in the illustration, and there received for inspection by the superintendent of this department. Each barrel is opened and samples taken of the product; it is then gauged, credited to the proper mill and the contents emptied into large filters and conveyed to one of three large receiving tanks by an ingenious arrangement of valves and rubber hose. The product is allowed to settle for twenty-four to thirty-six hours, according to the different capacities of the tanks. If destined for bulk packages, it is then drawn off to the filling tank on the first floor (illustration 3) and from there run into the barrels or half barrels for stock. Here a very im-

portant check is made, the superintendent noting the number of gallons, date, mill, run, etc., of the product as it goes into the tanks, each tank being allotted to the reception of extract from a certain mill, and the different products are never mixed. When it is barreled each package is first marked with a series of letters, which show the mill and the day of the month of distilling; the package is also numbered and gauged. This settles the identity of any one package forever, as these marks are never removed, and no other marks are ever permitted on the packages until they are shipped. The entering of all these records into the receiving book of the warehouse establishes a permanent and practical history of each item. The filling tank, as shown in illustration 1 is a rather novel apparatus, specially designed to give an absolute gauge and a considerable pressure so as to fill the packages quickly, and at the same time provide against any possible error in quantities expressed and to save the time which would necessarily be consumed by the older method of taking the gauge by the stick. The valves that connect with each one of the tanks on the second floor allow the engineer at will to use product from any one of them, independent of the others. These valves are automatic, and are released by a touch of the hand and close themselves when the zero mark at the top shows that the tank is full. Being some ten feet in height, the pressure is very considerable, and when released through the filling hose a barrel of forty-seven gallons can be filled in something less than a minute and a half. The moment that the flow is stopped the gauge tube shows exactly the gallons and fractions of a gallon that

have been put into the barrel. At this point the alcohol is added, and here the company has adopted a method to prevent any possibility of mistake in the way of putting the stated amount into each barrel. The alcohol is put into the package first, then the package filled up with the crude extract. As alcohol barrels vary all the way from one to two and a half gallons in the gross gauge, and as the company "alcohol" on the basis that all barrels would gauge at the minimum, the product generally overruns in percentage of alcohol, and never shows a less percentage than the standard. We have thus rapidly described the history of a barrel of crude extract arriving from the mill and going through the different stages of inspection, tankage, measuring and mixing, and finally the placing upon the package of the number, quantity and other marks of identity. The barrel then joins many of its predecessors in the large storage room (illustration 2), which, at the time, contained something over 550 barrels, representing in all over 25,000 gallons, valued at over \$12,000. Before leaving the warehouse we must go back to one of the largest and most important departments located on the second floor, viz.: the extensive and complete bottling room, with its appurtenances and apparatus used in the business. Illustration 3

shows the labeling and wrapping of the bottles, which are specially manufactured for the company by the Whitney Glass Works, of Philadelphia. They are first unpacked and washed in an ante-room, and are at that point placed in trays which contain a specified number of the different sizes. When the bottles are once cleaned and drained and placed in these trays they practically remain there until they have been filled, corked, labeled and wrapped and sent out to the packing room. It is this observance of details that enables the company to handle its large business and keep a constant check on all its employes, and in so small an item as these trays lies the secret of their never yet having a mistake made in the bottling-room, or, according to the records of the company, a claim made of any shortage in the packing of the thousands of bottles that pass through this department each week. All of the Hazel Bloom that is destined for the bottling department is taken from one of the tanks on the second floor and run through a purifier. If there is any secret process in the whole business it apparently lies in this one piece of apparatus. The chief engineer informed us that we could investigate and ask any questions that we pleased about any piece of property owned by the company except this purifier, and on

that point he would have nothing whatever to say. We have simply to record from observation that it probably takes eight hours for a barrel of the crude product to go through this piece of mechanism, and, although it is comparatively clear when it is put in, whatever process it is subjected to in this piece of apparatus, when it emerges it is as bright and sparkling as the alcohol itself, which is only a part of it. From the purifier it is put into special packages, which are attached by a simple hose and pressure bottle-filling apparatus fitted to a regular bottling sink such as is common to all establishments requiring bottling facilities. This has been reduced to so simple a system that one girl can easily fill and cork all of the bottles required for the daily use of this department, which practically averages over 1,000 per day. As noted before, the bottles are filled and corked without removing from the tray they were originally put in at the washing tank, and after filling and corking they are piled up, the quantity and size being stenciled on the end of each tray. The trays are of a size containing such quantities as are easily handled, and they are taken one by one by a girl who may be working on any particular size of bottle to her table, where the labels are put on, the tissue wrapper added, the bottle replaced in the tray, and it is then carried to the other side of the room and placed in a rack, where it remains until sent out to the shipping-room.

Another mechanical feature introduced by the company as a labor-saver is an overhead trolley railroad track (illustration 1), from which is suspended a combination chain block, by means of which a barrel of 45 pounds can be picked up at any point in the warehouse and transferred to another point with an expenditure of labor such as any strong boy can easily furnish. The shipping platform, from which all deliveries are made, is situated at the south end of the store-room. The company, not satisfied with being able to handle any amount of stock with a single pair of hands, found a way to save the handling of the packages between the warehouse and the railroad by building a continuous platform six feet wide from the side of the warehouse over onto the main tracks of the railroad, and arrangements were made so that a car can be loaded direct from the platform, or shipments delivered direct into a freight train by the means of special skids, etc.

We have noted briefly the facilities of this building in relation to the manufacturing part of the business, but in addition the company have all the accessories necessary to handle their business in the way of a large steam plant, Corliss engine, large steaming-room, sawdust and drying-room, with bins and mechanical appurtenances to deliver the sawdust to the packing-room, where all the bottled goods are packed in barrels and surrounded by sawdust, which the company has found the most practical way of shipping bottled goods without running the risk of breakage. The company also have their main offices on the first floor of the building, and the conveniences of the establishment are such that it has an easy working capacity of ten gross of bottles per day, and a storage capacity of 1,000 full packages and the same number of empty packages.



(1) Filling Tank.

Leaving the warehouse, a pleasant drive through the village of Chester brings us to the first, or Chester, mill, about two miles distant. This mill is one of the oldest in the country used in the manu-

requires considerable capital. The brush is all contracted for in November, December and January, and the brush bills are settled every Tuesday morning. From twenty to thirty persons are employed in

The mantle of secrecy which has been held up before the manufacture of this product is thrown aside by this company. They are perfectly willing to offer any of their customers or other reputable parties any explanations they may desire in regard to the manufacture of their goods, and, judging from the amount of business which they are handling after an existence of only a year as an organized company, it is quite safe to predict their future success in building up a large business in the sale and distribution of this product.

The company has adopted a trademark, "Hazel Bloom," for their standard product, protected by full letters patent granted in this country and on the continent, and under United States number 2531, they put up and manufacture only one standard grade of goods, which bears the name and title adopted by them. Wherever this brand is seen, it bears the guarantee of the company as to quality and percentage, and if by any possible circumstance there is ever a package of goods shipped or delivered by them that has passed the many barriers and checks devised to insure its quality, they are not only perfectly willing to replace it, but will thank any customer to report it, as by their system of registering, numbering and lettering each package it can be traced back and the careless employe detected. They are in the business to give an honest return for the money paid them, and with such principles for a guide and the facilities they have there is no question about their success.

The main offices of the company are at Chester, Ct., and the financial branch is located at 132 Nassau street, New York City. Messrs. Cushman Bros., of 78 Hudson street, New York, are the selling agents for New York City and vicinity, covering a circuit of forty miles. Mr. William S. Banker, of Albany, N. Y., holds the selling agency for the remainder of New York State. The Morley Drug Company, of Chicago, are the western



2. Storage Room.

facture of witch hazel extract, and is run by water-power. The internal arrangements of the mill comprise a full distilling equipment of five stills, steam boilers, condensing coils, brush cutters, etc. The capacity is fifteen barrels per day, and at the time of the visit there were over 100 tons of brush piled up alongside of the building and for quite a distance along the road, awaiting manufacture into crude extract.

Leaving the Chester mill, a five-mile drive over the Middletown turnpike and a short dive off into the hills from the main road brings us to the second, or the Killingworth, mill. This mill has a capacity of six barrels per day, and is completely equipped with a copper plant and the old form of distillation, known as the direct process, in which individual fires are used underneath each still, and old processes used instead of the more modern employment of steam.

Still another drive of about five miles across country brings us to the third, or Haddam, mill, situated in the heart of the brush country. This mill has a capacity of ten barrels per day, with a full complement of five stills, together with the same full detail of apparatus as described in the Chester mill, and using the modern steam process. It is impossible to describe in a brief article the many evidences of care and business ability shown in the management of the various details necessary for the successful handling of such an extensive business in the way of economy of labor and the carrying out of a perfect system. But there does not seem to be anything that has been forgotten to save a nickel in the proper transaction of the business, and there is certainly no evidence of any disposition to save money where, by its expenditure, the practical working of the business can be facilitated.

The business of the company necessarily

the various distilleries and warehouse, so that at the end of every month the product owned by the company represents quite an outlay of ready cash.

If anyone believes that the manufacture of witch hazel of a quality that can be depended upon, and in such quantities as will be necessary to supply the market, is child's play or a small matter, they will change their minds upon visiting the works of the company and seeing what a



(3) Labeling and Wrapping.

vast amount of labor and detail is necessary to manufacture the product which is so widely known in the United States and is rapidly becoming a household necessity in foreign countries.

agents. Negotiations are under way and nearly completed by which the company will be also ably represented in San Francisco, Washington, D. C., the City of Mexico and London, England.

TRADE NOTES.

Emmor H. Lee, drug broker, formerly of Columbia, S. C., has removed his family to Atlanta.

Lewis, Balfie & Co., Ltd., Shreveport, La., who were burned out recently, will resume business about May 1.

The Standard Carbonating & Bottling Co., incorporated, have begun operations at the corner of Pryor and Mitchell streets, Atlanta.

The registry of a label for "Clarke's Cherry Rye Phosphates with Pepsin" by Colburn, Birks & Co., Peoria, Ill., is noted in a late number of Mida's Criterion.

Glenn's Sulphur Soap is claimed to be the original sulphur soap, and it has been before the public long enough to have its reputation thoroughly established. It is advertised "For sale by all druggists," and that is where the public expects to find it.

When you want something in the way of a corn remedy do not forget the preparation manufactured by the U. S. Corn Killer Co., Buffalo, N. Y. Their motto is: No kill! No pay! They offer one dozen and a half for \$1.50 on the first trial order. Retail for 25 cents.

The druggist in all communities is considered the standard bearer of scientific achievements, the first to recognize meritorious production. This truth accounts for the 20,000 patrons of the Liquid Carbonic Acid Mfg. Co., of their perfected apparatus for charging soda and mineral waters.

The druggist who is looking for a box prescription scale, with all the latest improvements should not overlook the offer of Robert Stevenson & Co., Chicago, on page 8 of this issue. The Dearborn Box Prescription Scale and Dearborn Counter Scale are now offered at \$20 for both. See detailed description of these scales.

If there are any people in your neighborhood who ought to have invalid chairs, crutches, or any kind of mechanical appliance for the alleviation of suffering, you should send for the catalogue of R. Boerick & Co., 495 Wells street, Chicago, who manufacture apparatus of this kind, and make an effort to work up trade. It will pay you.

The necessity of text books upon pharmacy has always been recognized, and their value to the profession has always been duly credited; but it is only within late years that the necessity for books upon profitable side lines has been clearly recognized. Now that the soda water business is so strongly established in connection with that of pharmacy proper, the demand for something of this kind is quite clear, and it is to fill just such a demand that Saxe's New Guide has been written. It fulfills its mission by showing how to manufacture and dispense soda water in a manner which will attract trade and keep it. The profits on 100 glasses of soda water will pay for it, and the information it contains is yours for all time, and the investment of \$3 will pay dividends as long as you keep a soda fountain. It is published by the Saxe Guide Publishing Co., 409 Dearborn street, Chicago.

The Searle & Hereth Co., of 183 Canal street, Chicago, manufacture nearly everything in the way of standard pharmaceuticals, but their popular specialty is "Trificia." Interesting literature upon this preparation will be sent you if you desire it, and your physician can obtain samples free of charge upon application.

By ordering your prescription blanks in large lots of J. B. Burr & Co., Hartford, Conn., you are able to get them as low as 35 cents per thousand. It certainly pays to buy in large lots. If you desire anything in the way of office books, using carbon paper for duplicating correspondence, you should write this firm for prices.

Ordinary corks are perhaps good enough for ordinary purposes, but the Williamsburg Cork Co., Brooklyn, N. Y., believe that greater satisfaction will be obtained by making special corks for druggists. They therefore make that kind of corks, and a trial order for their goods will convince that these special goods are just what every druggist wants.

Commercial travelers who visit the drug and fancy goods trade will find an opportunity to make money by writing A. P. Preston, Portsmouth, N. H. "Preston of New Hampshire" has an exceptionally fine line of toilet articles, perfumes, etc., and a deaf and dumb man could sell his goods with the samples he furnishes. Write him for particulars.

Powers & Weightman, of Philadelphia, request that their friends when ordering their U. S. P. products to kindly specify which pharmacopoeia is meant, that of 1880 or 1890. In the absence of specific instructions they believe they are correct in sending "1890" preparations, but greatly prefer that orders be explicit on this point.

The Stopped Citrate Bottle with patent lightning stopper, lately introduced by the Saltsburg Bottle Works Co., Saltsburg, Pa., is sure to be a great favorite with the public, as by its use the bottle can be corked and uncorked at will without detriment to the medicinal properties of the preparation contained therein. The bottles cost but \$7.50 per gross.

Alfred Legoe & Co., Philadelphia, not only make several sizes of the Keystone Tablet Machines to meet all requirements, but they furnish any information desired in regard to mixing materials, formulas, etc., to their customers. When you think of purchasing a tablet machine investigate the Keystone.

Is the uniformly ornamental appearance of your shelf-ware becoming deteriorated by the shabby appearance of some of the labels upon your bottles? If so, Dr. R. R. Lansing, of Detroit, Mich., can help you out. His patent glassine labels are intended for wear, and he can reproduce any style of glass label that you desire. Send 8 cents for sample and see what they are like.

The ordinary cutter will have to bestir himself if he undersells you on the Beef, Wine and Iron which you buy of Henry K. Wampole & Co., of Philadelphia. He sells in bulk, barrel lots, at \$1.30 per gallon, and bottled in gross lots with your lithographed label at \$42 per gross. Samples will be sent you if you desire to assure yourself of the quality of Wampole's Beef, Wine and Iron.

Kinlool, the new antipyretic and analgesic, is now put up in one ounce vials in either powder or tablets, the latter being made of five grains each. In headache and neuralgic pains this preparation exerts a most pleasing influence relieving the pain without depressing the system. Send to the Kinlool Company, Cleveland, O., for free samples, and let your physicians test their merits.

As American agents for the well-known foreign firms Heine & Co., Leipzig, Lautier Fils, Grasse, George Lueders & Co., 218 Pearl street, New York, are in a position to furnish the drug trade with oils in which perfect confidence may be placed. When ordering Oil Mustard, synthetic, specify "Heine & Co.," and when Olive and Almond oils are wanted specify "Lautier Fils."

The spring housecleaning season will soon be here and every druggist should be prepared to furnish his customers with Gypsigne, the wall finish, manufactured by the Diamond Wall Finish Co., Grand Rapids, Mich. Write them for particulars, color cards and a copy of the "Gypsigne Advocate." This little paper is bright and attractive, sells Gypsigne, and advertises the dealer who handles it.

Henry W. Stecher, of Cleveland, O., argues that other things being equal, the largest sheet of sticky fly paper will catch the most flies and he asks the drug trade to carefully consider this point when looking into the merits of "Stick-Em." The public is very thoroughly posted on this undoubted advantage and will show its appreciation by favoring the large sheet.

Remarks about the weather are always in order, and the weather is such that remarks concerning the packing away of winter clothing will soon be apropos and the public will soon be heard calling for naphthaline. Schoellkopf, Hartford & MacLagan, 3 Cedar street, New York, are headquarters for this product in flake, crystals and balls. Large buyers should send to them for special quotations.

WORLD'S FAIR PICTURES.

Later parts of the Michigan Central's World's Fair Portfolio fully justify the claim made upon the publication of the first number, that it was the best, the finest and the most artistic of popular publications on the White City.

Each part contains sixteen (16) large plates and is sold for only ten cents. If you haven't seen it, the nearest Michigan Central ticket agent will show it to you, or you can write to O. W. Ruggles, G. P. and T. Agent, Chicago.

A LAWYER'S TESTIMONY.

Mr. John W. Lyon, a prominent lawyer at Port Jervis, N. Y., writes: "With Quinn's Ointment I have reduced a lump or bone difficulty on forward leg of my valuable road horse and am much pleased. It had been previously treated without success." For curbs, splints, spavins, windpuffs and bunches use this wonderful remedy. Quinn's Ointment is indorsed by the leading breeders from Maine to California. It will pay to carry it in stock, and if you desire advertising or will send the names of ten or twelve of your customers, write to Messrs. W. B. Eddy & Co., Whitehall, N. Y., they will forward them, without charge, trial packages.

The Herf & Fretlich Chemical Co., of St. Louis, are now in a position to supply Sulphite Soda, Granular, Crystals and Dried Powdered, in large quantities and at low prices. Their quality is excellent and they solicit inquiries from large buyers.

He who attacks old methods may be called an iconoclast or other hard names, but progress and perfection has been the motto of the Liquid Carbonic Acid Mfg. Co., Chicago, Pittsburg and St. Louis, and they now feel that they have planted their banner on the very pinnacle of achievement in their line. Write for catalogue and prices.

Garwood's Perfumes have for many years been regarded with much favor by leading retail druggists. Their two new odors, "Gardenia" and "Sweet Scented Shrub" seem to excel their usual high standard, judging at least from the number of orders the firm are booking. Perhaps the unusually liberal offer they make as an introduction may have something to do with it. Look for their announcement in the next issue.

One way to counteract the influence of the physician's supply houses is for the pharmacist to make an effort to interest the physician in the preparations and specialties of a house which does business through regular channels. This is the position taken by The Tilden Co., of New Lebanon, N. Y., and they are always ready to co-operate with the pharmacist in bringing their goods, through him, to the notice of the medical profession.

"Book of Soda Water Syrups" is the title of a 68-page book just issued by James W. Tufts, 33 Bowker St., Boston. Mr. Tufts wants every druggist who has a soda fountain to have a copy of this neat little book, and if excellence of the material contained in it is any indication, a great many will want it. It is full of formulas and good advice as to the proper manner of conducting a soda water business to make it pay.

The statement that complaint and loss can be avoided by handling "Tanglefoot" is one which does not apply to flies, but to the dealer who handles this popular sticky fly paper. Tanglefoot is so carefully made that its manufacturers claim that it will retain its good qualities and be true to its name under the range of climatic conditions which prevail from Manitoba to the equator. See prices for 1894 in advertisement in this issue.

The Iron Clad Manufacturing Co., of 22 Cliff street, New York, claim that not a single case is on record where one of their patent Truss-bottom riveted Steel Fountains has exploded, and they present some very good arguments why their peculiar processes of construction have made this record possible. If you are interested in soda water matters you should investigate the steel fountains manufactured by this firm.

The Welch Grape Juice Co., of Vine-land, N. J., have exhibited at thirteen food exhibitions during this season, and they estimate that they have given away in sample tastes over 2,000 quarts of their grape juice. That this pays them is evidenced by the fact that their spring trade is far in advance of that of last year, and their order for glassware for use during the coming season has just been placed for over one thousand gross of bottles.

Have you taken advantage of the offer which the Acme Tablet Triturate Works, 96-98 Maiden Lane, New York, are making to introduce their Little Liver Tablets? They will furnish you all you can sell within thirty days free of cost if you will order and pay for a like amount within the following thirty days. These tablets cost 84 cents per dozen, \$8.64 per gross; \$5 in five-gross lots. Retail for 10 cents.

The retail druggists have discovered that there is money in handling bath mitts, flesh mitts, slippers, robes and Turkish towels and the Star and Crescent Mills Co., of Philadelphia, report a growing demand for this kind of goods manufactured by them. They are now making arrangements to place their goods in the hands of the regular jobbing trade, and the retailers will soon be able to have their wants supplied through this channel.

A pill cabinet is an article of furniture which every druggist has a use for, and when the same can be procured free of charge with purchases of goods in every day demand, the opportunity should not be neglected. The Upjohn Pill & Granule Co., of Kalamazoo, Mich., offer two sizes of such cabinets with orders for assortments of their goods amounting to \$50 and \$100 respectively. Write them for their latest pill list, and ask about these cabinets.

Owing to the great increase in their soda water business the Silurian Mineral Spring Co., of Waukesha, Wis., have made arrangements to charge fountains at their Chicago warehouse. This will effect a great saving in time and will enable them to give much better satisfaction to their customers in Chicago and vicinity. They have a complete apparatus for charging fountains at their Chicago warehouse, and will ship the water from Waukesha in block tin-lined barrels.

"Something worth reading" is what everybody is after, and as the catalogue of the Tyer Rubber Co., Andover, Mass., comes within this category every druggist should have it. Send for it and see what this company has to offer in the way of syringes, breast pumps, atomizers, water bottles, rubber gloves, etc. Druggists ought to be able to do something with the Tyrian plant sprinklers this summer, and should investigate the Tyrian Sanitary Cover as a seller.

The accompanying illustration represents the patented Automatic Alarm Box used by the J. Hungerford Smith Co., of Rochester, N. Y., to pack their "True Fruit" Pepsin & Kof-Kure chewing gums. It is a fancy counter box, lithographed in attractive colors, having a glass cover which operates the striking mechanism, giving a single stroke on the bell every time the cover is raised. The box attracts attention, helps sell the gum and besides prevents pilfering. Each box contains sixty



5-cent packages. Write for prices.

The "U. S." brand Empty Capsules are offered to the trade as standard articles at standard prices, and anyone desiring to investigate the claims of the manufacturers regarding the uniformity in size, cut and finish of these goods will have samples furnished for comparison with other brands. Address U. S. Capsule Co., Detroit, Mich.

There are many conditions of disease which a quickly assimilable, agreeable and comprehensive nutriment is required, and there is none, perhaps, which so fully approaches these requirements as Panopepton, the bread and beef peptone manufactured by Fairchild Brothers & Foster, New York. It is meeting with great approval from the medical profession, and is a preparation which will pay the druggist for the space it occupies upon his shelves.

Have you received the latest revised and enlarged prices current of the Wm. S. Merrell Chemical Co., Cincinnati, O.? If not it will be sent you upon application. The products of this firm cover such a wide scope that a price list issued by them becomes a valuable index both of materia medica and prices. See their advertisements in this issue, and note the list of tablet triturates and compressed tablets upon which you can have a good trade the coming season if you will add them to your stock.

A. H. Wlitz, of 913 Cherry street, Philadelphia, manufactures so many things which every druggist needs that his catalogue should be in the hands of every member of the trade. He makes a specialty of bottle stoppers for corks and screw-neck liquid and powder bottles, collapsible tubes for ointments, pastes, perfumes, etc., pill machines, moulds for suppositories, bougies, camphor ice, cosmetic, etc., and makes a general line of metal goods for the drug trade.

All druggists who handle trusses, elastic stockings, etc., should have the catalogue of George R. Fuller, Rochester, N. Y., and compare his prices with those of other manufacturers. Those of the trade who have never given the subject much attention will also find upon examination of this catalogue that they have only to take advantage of opportunities which exist in every neighborhood to work up a profitable trade in crutches, artificial limbs, etc. It only requires a little effort to do this and it pays well.

The New York office of the Deane Plaster Co., of Yonkers, N. Y., has been removed from 42 Dey street, to 100 Fulton street.

You will probably have to pay "trust" prices for the alcohol which you must use in making bay rum, but there is no use in paying fancy prices on extract of Bay Laurel when you can purchase a pound for \$2 of Henry Thayer & Co., Cambridgeport, Mass., and make eight gallons of superior bay rum with it. See list of jobbers in this issue, who keep it in stock.

Besides furnishing goods of unquestioned high quality, W. H. Bowdler & Co., of Boston, put up their pure white and pure refined beeswax in an attractive manner and in parcels to suit the retail trade. Many dealers will consult their own interests by noting the various packages in which these goods are put up as shown by the firm's advertisement in this issue, and will save money by ordering original packages. The leading jobbers handle the W. H. B. brands of waxes.

We are Chicago agents for "True Fruit" Fountain Syrups, manufactured by the J. Hungerford Smith Co., of Rochester, N. Y., from the finest selected fruits, by a new cold process of their own. They are concentrated, rich, heavy, triple strength syrups, far superior to fruit juices, retaining the true flavor and bouquet of the fruit. The most convenient. Dilute with two to four parts rock candy syrup and they are ready for use.

D. B. SCULLY SYRUP CO.,
49-51 River st., Chicago.

Wm. R. Warner & Co., Philadelphia, are always to the front with pharmaceutical applications of the latest medical discoveries. Pharmacists will do well, therefore, to keep in touch with this firm in order to supply the wants of the medical profession promptly and satisfactorily. Among the articles now in great demand are their Elixir Salicylic Compound, Liquor Pancreapsin, Pills Sumbul Aperient, and Compound, Pill Arthrosia, Pill Cascara Cathartic, Pill Chalybeate Compound, and Bromo Soda.

Red Orange Juice, made with different parts of the sweet, bitter and mandarin oranges, apportioned and blended with the juice so as to give a perfect representation of the flavor of the red orange of Malta, is one of the specialties of the season with Smith & Painter, Wilmington, Del., and is bound to be a favorite. Every druggist owning a soda fountain should send to this firm for their book on "Natural Fruit Juices." It is full of recipes for fountain syrups, mineral waters, creams, etc. It only costs the trouble of applying for it.

The economy of buying certain goods in large lots is shown very strikingly in the offer of the E. N. Rowell Co., Batavia, N. Y., in their advertisement in this issue. It shows that a manufacturer can afford to make a big reduction in prices on such lots and the buyer reaps the advantage. Bronze pill boxes with your lithographed label on them at 70 cents per gross, or 60 cents per gross with printed label, in 10-gross lots is certainly a bargain. The samples which they send will convince you that the goods are worth the money.

Of all the new drinks brought to public notice of late there is none perhaps more popular than Silurian Wild Cherry Phosphate. It is tonic and antiseptic in its effects and a decided nerve bracer. This popular drink is now put up in the shape of a syrup for serving at the soda fountain the same as any other soda water drink. It is quite sure to share in the favor which is extended to all Silurian products and any druggist having a soda fountain who will write to the Silurian Mineral Spring Co., Waukesha, Wis., will have a sample sent free of charge.

The uniform high character of the products of the New York Quinine & Chemical Works has caused them to occupy an enviable position in the esteem of the medical profession and it naturally follows that the pharmacist shares in this opinion. The dispenser who looks for satisfactory results will do well to specify "N. Y. Q." when he desires anything in the way of quinine, morphine and their salts, santolin, aloin, cocaine and acetanilid.

Webber-Pepsin, S. & D., has an advantage which is easily recognized in being just twice as active as the minimum requirement of the U. S. P. 1890. There are many physicians who frequently desire to prescribe a pepsin of high power, and to such the Webber is a favorite brand. At the same time, if one is desired which meets the U. S. P. requirement in every detail, it is only necessary to dilute this pepsin with sugar of milk. That Webber pepsin thus prepared is economical is shown by the figures given in the advertisement in this issue of Sharp & Dohme.

Dodge & O'Connell's factory price list for April contains a full page photo-print of a native sketch sent them by a correspondent in China, illustrating the primitive methods employed by the Chinese in producing Oil Cassia. As the author of this unique production uses the English language in a rather original and free-handed manner his sketch has been dubbed "The manufacture of Oil Cassia," according to "Ah Sin," and the artistic character of the work convinces us more than ever that the "heathen Chinese is peculiar."

Almost any kind of a sticky composition will catch a fly, but the great point in choosing a sticky fly paper is to get one which is not too adhesive in cool weather and which does not allow the composition to flow too readily in hot weather. The "Champion," manufactured by E. F. Baker, Chicago, is claimed to meet all these requirements and is made of a parchment paper which is noted for its adhesive and non-drying qualities. In looking for a paper that will please your customers, let the Champion enter into your calculations.

Quality and other things being equal, the best line of paints for a dealer to handle is the one which is easiest to sell. As with everything else, advertising is quite an important factor in the selling of paint, and this is one of the reasons why it pays to handle goods manufactured by John Lucas & Co., Philadelphia and Chicago. Their unique color cards help people to select paint by showing them harmonious color combinations. Write them for samples of their color cards and dealer's discount.

"Denarco" and "To-bak-ure" are two remedies for the cure of the opium and tobacco habits respectively, which the H. W. Comstock Remedy Co., of Lafayette, Ind., have been quite successful in bringing to the favorable notice of the public. They are handled through the drug trade and those not posted upon the remarkable results which are being achieved through the use of these remedies, will be supplied with literature upon application. Write for prices.

W. H. Schieffelin & Co., New York, handle everything needed in the way of soda fountain requisites, and their advertisement in this issue names some prices which should not escape the attention of careful buyers. Their fruit juices are economical, as portions not used will keep perfectly, and but one part of juice is required to seven to ten parts of syrup. Large buyers should obtain their prices on bulk and gross lots, and all interested in the soda water business should send for this firm's descriptive list of the requisites, which will be mailed upon application.

The United States Printing Co., of Cincinnati, have recently issued a little book entitled "Card Games, 1894," containing the rules governing popular games at cards, embracing the very latest controlling decisions. For instance, "Whist," as revised by the last American Whist Congress, held at Chicago, June, 1893, is illustrated in detail, and the decisions on every point in the game are clearly set forth under the highest authority. Single copies sell for 25 cents, and druggists who handle playing cards should write for trade prices, as the book is one which the public wants.

There are many social occasions upon which the use of wax tapers becomes the proper thing and the druggist might as well let his light or tapers so shine that the public will know where to purchase them. The famous Haledon brand manufactured by Theodor Leonhard, Paterson, N. J., give good satisfaction and may be profitably added to the dealer's stock. The "T. L." and "Diamond L" brands of beeswax, also manufactured by Mr. Leonhard, are also satisfactory sellers and their qualities can be judged by the sample cakes which will be sent free upon application.

IMPORTANT.

Dealers will please take notice that R. E. Mills is no longer connected with this company. Pay no money, or give orders to anyone who does not show written authority from us.

LETTUCE CREAM COMPANY,
114 Fifth ave., New York City.

THE PLACE TO DINE IN NEW YORK CITY.

Business men visiting New York City are beginning to find out that one of the cosiest places to get a good dinner, with everything of the best, is the old restaurant, formerly Heckman's, now called the "Century," at No. 122 William street, in the center of the drug district, which has changed hands and is now run in first-class style by one of the best caterers in the city. There has been a restaurant in this building (the oldest in the city) as far back as the memory of the oldest inhabitant can run. Many of the leading business men, who are particular regarding their meals, may be seen regularly at this old hostelry.

What are you doing to carry out the ideas of the compilers of the U. S. P. 1890, regarding the employment of metric weights and measures? If it is simply a question of expense for the necessary appliances you should read the advertisement in this issue of Gilpin, Langdon & Co., Baltimore. They offer a set of metric weights and graduated measures with some goods which every druggist wants and must have. As the goods are sold at list prices the question of expense for the weights and measures is effectually settled. Write this firm for their price list and formulae; both are interesting.

Dealers who have calls for a rheumatic remedy should write to the Yellow Pine Extract Co., Albion, Pa., for advertising matter, which includes blanks for names of sufferers from rheumatism, whose trade they will work up for dealers, by mailing a descriptive letter, and circulars, with retailer's name as agent for their specialty. Yellow Pine Compound is claimed to be a perfect and permanent cure for any form of rheumatism, and one bottle sold creates a market for the remedy.

Goods sell at \$2.00 per bottle. For rates see their advertisement on another page.

Any druggist who has the Birney Catarrhal Powder in stock or will advise the manufacturers that he has ordered it will receive the co-operation of the latter in effecting its sale. By sending in 50 to 100 names of customers a free sample of the powder is mailed direct to the parties so designated with the compliments of the druggist furnishing the names. Every druggist should send his name and address to the Birney Catarrhal Powder Co., Masonic Temple, Chicago, and receive free a sample bottle of the powder and the beautiful picture "In Suspense."

Among the Nichols' preparations manufactured by Billings, Clapp & Co., Boston, that known as "Phosphoric" stands deservedly high with the medical profession. It is a phosphorized emulsion of pure cod liver oil, combined with the hypophosphites of lime and soda. Each fluid ounce contains one twenty-fifth of a grain of unoxidized phosphorus and eight grains each of the hypophosphites mentioned. This combination is claimed to furnish the best possible vehicle for the administration of phosphorus and one which is most effective in the presentation of cod liver oil in an elegant and palatable manner.

A recent United States consular report from Chemnitz, Germany, says that the Germans act upon the principle that a poor article in an attractive box is more easy to sell than a good article in an indifferent box. This theory of doing business is somewhat along the same lines as that advocated by Jesse Jones & Co., Philadelphia, in their advertisement in this issue. They insist that every article worth having should go to the public in a suitable container, and it is in the matter of containers, such as the "J. J." boxes that they have some particulars which will interest every druggist who will ask for them.

PLAYING CARDS.

You can obtain a pack of best quality playing cards by sending fifteen cents in postage to P. S. Eustis, Gen'l Pass. Agt., C. B. & Q. R. R., Chicago, Ill.

There is no trouble in selling Cushman's Mental Inhaler, for all you have to do is to let your sneezing, snuffing and coughing customers try one of them and the first inhalation usually settles the question in favor of the druggist who has them for sale. Write H. D. Cushman, Three Rivers, Mich., for information relative to his latest advertising offer.

Messrs. John L. Whiting & Son Co., brush manufacturers, of Boston, Mass., inform us that they have been advised by the committee on awards at the World's Columbian Exposition, at Chicago, of the following awards on their goods: "For valuable improvements in the manner of holding the bristles, differing entirely from that of other manufacturers, thereby increasing the length of the bristles for use, at the same time adding materially to the durability of the brushes. For the high grade of material used in their manufacture. For excellent workmanship and finish, and for the large display of paint, wall, varnish, whitewash, kalsomine, lather and artists' brushes."

A great statesman of our country in speaking of the resumption of speculations said that the proper way to resume was to resume. This plan is somewhat similar to that advocated by the D. B. Scully Syrup Co., 49 River street, Chicago, in the manufacture of Rock Candy Syrup. They say the proper way to make it is to make it of Rock Candy, a very natural, simple and easy operation and one by which the resulting product is of a definite nature and of assured purity. The approaching soda water season will naturally cause some interest to be taken in syrups, and the dealer should obtain the prices of the Scully Syrup Co. with a view of determining where to buy the best for the least money.

Dr. F. von Heyden's special Bismuth preparations are suited for many conditions where the therapeutic effects of the phenols and bismuth are desired. Phenol and Betanaphthol-Bismuth have been found of great service in all gastric diseases. Tribromphenol-Bismuth has been recommended by Hueppe as a specific against Asiatic cholera. Pyrogallol-Bismuth has the advantage of resisting the action of acids, while it dissolves in alkaline liquids, the intestinal juices more especially. Its use is indicated in the treatment of wounds, ulcers, lupus, etc. Full information regarding these preparations can be obtained through Schering & Glatz, sole agents, 55 Maiden Lane, New York.

ANNOUNCEMENT TO THE TRADE.

We desire to announce that the manufacture of Dr. Knorr's Antipyrine in the fine granular form in which it is now supplied to the trade admits of a production of a purer and more reliable article than that formerly supplied. In Europe, where it has been thus furnished for a considerable time, the medical profession has observed better therapeutic effects from its employment than those which have resulted from its use in its finely powdered form. In the future, therefore, Antipyrine will be manufactured and sold in this fine granular condition only.

SCHULZE-BERGE & KOEHL,
Sole Licensees for the United States,
No. 78 Murray street, New York.

Although the representation of the faded mermaid emerging from the briny deep to obtain a glass of Bowker's popular beverages is somewhat fanciful, yet this action of the representative of the highest social circles of the kingdom of Neptune finds a counterpart in the members of our own social world, whose discriminating taste leads to the same demand. Bowker's Birch Beer, Root Beer, Hitter Beer, Ginger Ale and fruit flavors have been, are now, and always will be favorites, and the dealer who dispenses these will please both himself and the public. Send to Dr. H. L. Bowker & Co., 26 Franklin street, Boston, for their large catalogue.

HAVE YOU SEEN IT? Eastern Star Perfume.



The latest success in the line of popular odors made by Foote & Jenks. It is very delicate and delightfully fragrant, yet its endurance and lasting properties when applied to the handkerchief or clothing is perfectly wonderful.

It is pre-eminently a favorite with ladies, and you know the ladies use most of the perfume. Most druggists have some lady customers who are members of the order of the "Eastern Star" in whose honor this odor was named. Most gentlemen are fond of perfume—also of ladies—and take very kindly to the "Eastern Star." Order a bottle of your jobber, or send to Foote & Jenks for sample and price list.

Trade tributary to New York City can be supplied by McKesson & Robbins.

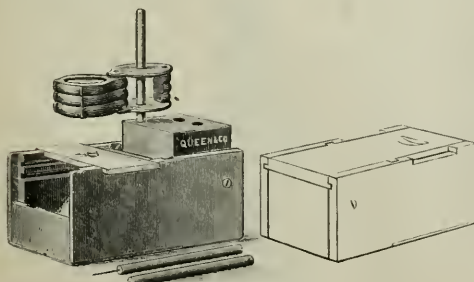


The above cut represents a new style of tin boxes lately put upon the market by Joseph G. Tait's Sons, Philadelphia, Pa. They are of convenient size to be carried in the vest pocket and hold one dozen of either quinine or compound cathartic pills. They are made of bronzed tin with lithographed labels of olive green, and are lacquered inside. They are put up in pasteboard boxes of one-half gross each, and as they are very handsome and attractive they will undoubtedly be received with favor by the trade. Specify Joseph G. Tait's Sons, when ordering of your jobber.

The season will soon be here when the public will take renewed interest in the subject of disease germs in articles of food, and it is safe to say that our scientific men who are engaged in the investigation of such subjects will not relax their efforts, but will more than ever endeavor to awaken the public interest in such matters. This is the time, therefore, when the druggist should locate his own position upon the subject and one means of doing this is to become posted as to the workings and merits of Arnold's Steam Sterilizers, manufactured by Wilmot Castle & Co., Rochester, N. Y. They will send full particulars upon application, and people will soon be looking for articles of this kind.

The advertisement of Frederick Stearns & Co., Detroit, upon page three of this issue will be a pleasant reminder to many of the drug trade of a great event which formed almost the sole topic of conversation about one year ago. The World's Columbian Exposition, with its glory and successes, is now a thing of the past except as it lives in the memories of those who visited it, and upon the pages of history. As regards the former there is sure to be in the mind of every druggist a pleasant remembrance of the handsome exhibit of this firm's products at Chicago, and in the way of history F. Stearns & Co. can certainly be proud of the fact that the record will always show that fifteen awards were given them upon their products, number one being for "the extent and importance of the exhibit, and general skill in their productions."

An investment of a little over two cents may bring in big returns if it is placed in the proper manner. A promising opportunity of this sort is in sending to James W. Tufts, Boston, for his new catalogue showing latest designs in soda fountains, bottling apparatus, fruit juices and extracts. The small apparatus entirely composed of Mexican onyx which Tufts builds to order, are gems of beauty and artistic excellence. They should be investigated. You should also send for a little book entitled "How to Make a Soda Fountain Pay," being a reprint of an article on "Side Lines" by D. S. Carraway, originally appearing in Merck's Report. It contains many valuable hints for the soda dispenser, and will be of service to every druggist.



ment is now undoubtedly the very best instrument of its class. It is sold complete with a 3-lens magnifier at \$1.75, post free.

This firm also makes a special feature of its business, the manufacture of suitable collecting apparatus for plants, including their new plant-press, which is light, neat and very convenient.

Office of Board of Health.

Waukesha, Wis., Jan. 25, 1894.

White Rock Mineral Spring Co.:

Gentlemen—It affords me great pleasure to be able to recommend your White Rock Ozonate Lithia Water, knowing as I do that every quart contains seven grains of Ozonate Lithia. In the treatment of diseases of the urinary organs, especially Bright's disease, I know of no other water its equal. This is my experience in my own private practice; hence I feel confident in making the above statement. Physicians need not hesitate in making this a prescription, as they are dealing with a known quantity and will get positive results. Respectfully,

R. M. WIGGINTON, M. D.,
Health Physician.

"Many men of many minds." Colburn, Birks & Co., of Peoria, Ill., say that all men are, however, of the same mind when the merits of Clarke's Pure Rye Whiskey are involved. They all know that it is the purest whiskey now in the market. It is a pure whiskey because nothing but the best selected, healthy, new rye that can be bought is used in its manufacture, only a small proportion of barley malt being used (20 per cent), just enough to convert the starch into grape-sugar. The greatest care is used in the distillation so that all injurious foreign elements are entirely eliminated. The success of Clarke's Pure Rye Whiskey has been phenomenal, and credit is due to the firm of Colburn, Birks & Co., the sole distributors, for the judicious and energetic methods they have used in introducing this elegant whiskey.

Although no druggist may have tried the experiment of placing two kinds of tumblers before his soda water patrons, one of thick glass and ungainly aspect, conveying the impression that they were intended for rough and awkward people, and another of thin glass and symmetrical appearance, there is no doubt as to which kind preference would be shown. This probable choice on the part of the public shows that some judgment should be exercised in purchasing such goods, and the advertisement in this issue of Whitall, Tatum & Co., Philadelphia, shows a very complete line of the same, with prices which should claim the attention of every man who sells soda or mineral waters. In addition to the styles shown this firm manufactures a number of special styles, and will send descriptions and prices upon application.

Queen & Co., whose advertisement of pocket magnifying glasses appears upon another page, desire us to call attention to the fact that they have just made several improvements in the construction of the already popular Gray Botanical Microscope, which is a very compact, convenient and low-priced microscope for the dissection of flowers. The instru-

There is soda water and soda water. Who has not tasted different kinds dispensed from the same kind of apparatus and from apparently the same formula? Of course there is a great deal depending upon the skill of the dispenser, but there is also as much, if not more, depending upon the quality of the material he uses. The Beach & Clarridge Co., of Boston, have taken advantage of this latter fact to put upon the market a line of soda water requisites for use by the dealer who dispenses the kind of soda water that the public likes. They have been successful in their efforts too, and will aid every druggist in dispensing trade-drawing and trade-retaining beverages who will send for their catalogue.

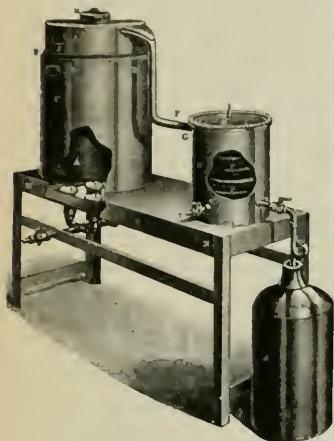
Very few druggists have any unoccupied space in their stores, in fact the opposite state of affairs most often exists—that of several articles struggling for the same space, and it then becomes a serious question, that of arranging stock to the best advantage both for convenience in handling and display. One of the means to this end is the employment of the "Silent Salesman," made by John Phillips & Co., Detroit, Mich. This is a show case in which the space usually occupied by the counter is utilized for the display of goods and it is this feature allowing close inspection of the goods contained therein that gives it its name. Druggists will find this combination of counter and show case very convenient for cigars and the display of toilet articles and drug sundries. Send for prices on the "Silent Salesman."

The famous Malthusian theory regarding population and subsistence has always been a bone of contention between the ever-warring political economists, and now the Cudahy Pharmaceutical Co. have entered the lists against the noted English philosopher. It is somewhat astonishing when we consider the fact that science is now able to do such surprising things in the economy of food products, among which may be enumerated the manufacture of beef extracts, and the utilization of what used to be considered as waste products in contributing to our food supply. In fact, science is not only finding new sources of food supply, but actually furnishes pepsin to further increase our digestive capacity. Send to the Cudahy Pharmaceutical Co., South Omaha, Neb., for their booklet, "From Ranch to Table," and note the discussion "Starvation and Science."

We learn that the famous house of Ed. Pinaud, of Paris, has again been honored; and this time it is no less a distinction than the bestowing by the French government on Mr. Victor Klotz, the head of the house of Ed. Pinaud, the title of Chevalier de la Legion D'Honneur. This great mark of governmental favor was conferred on Mr. Klotz for the grand exhibit at the Chicago Exposition, and for the superiority of the goods.

We extend to Mr. Klotz our hearty congratulations, as the honor is not an empty one, for the recipient of the Order of the Legion D'Honneur from the French Republic must have rendered great services in advancing either its manufactures or arts, or for some other meritorious achievements; and we have no doubt that the great house of Ed. Pinaud will now become more famous and more widely known than ever.

Tollet paper is now a staple product. Its sale is increasing every day and there is no prospect of a diminution in the demand for it. It is in staple articles like this that competition is always a factor, and the dealer who desires to hold his trade must be on the lookout for opportunities to buy in the cheapest market. The A. P. W. Paper Co., of Albany, N. Y., are now selling their popular brands of paper, so that the druggist can retail it at prices which he formerly paid for it. Send for their new catalogue and reduced price list, remembering that the demand for tollet paper is on the increase.



Of all the known processes for purifying water that of evaporating and condensing is considered the most effectual, as is evidenced by the explicit directions of the United States Pharmacopoeia. These directions, however, call for a suitable apparatus, and the question of the selection of such is one which calls for some judgment on the part of the druggist. The use of distilled water is an absolute necessity for the pharmacist, and an apparatus which will furnish this product quickly, safely and economically is the one which he should purchase. The illustration shown above represents the Hygeia Water Apparatus invented and manufactured by the Jas. Curran Mfg. Co., 512-514 West 26th street, New York. An experience extending over thirty years in the manufacture of stills of this character has enabled this firm to place upon the market an apparatus which meets every requirement. The advance of sanitary science has naturally had an awakening effect upon the common people, who are beginning to be as careful in selecting the water they drink as in the food they eat. There is nothing to prevent the retail druggist from filling this demand which is now beginning to show itself, and furnish his customers with pure Hygeia water for table use, etc. Among those using and commending the Curran stills are Fraser, the 5th avenue chemist, New York, and the Army Medical School. Write for prices and the little blue book "How to Avoid Drinking Impure Water."

Other things being equal, the only reason for investing money in an attractive soda fountain is because it pleases the public. It is not strictly necessary as good soda water can be made with the simplest contrivances, but it will not do to go against public opinion in such matters. Every druggist knows that customers prefer the elegant elixir to the muddy looking mixture, and would rather receive the elegantly cartoned package than the slovenly wrapped bundle, and he knows it pays to please the public in such matters. It is the same way with soda fountains. The Low Art Tlle Co., 952 Broadway, Chelsea, Mass., have been preaching this sound doctrine for years and have been practicing what they preach by making goods which illustrate the idea quite forcibly. They show the druggist how he can please the artistic sense of his patrons and thus stimulate the appetite for the great summer beverage. Send for their catalogue, which shows illustrations of their fountains printed in colors, and when the time for buying comes get their prices.

No one who knows that most eloquent of after-dinner orators, Dr. Channcey M. Depew, has ever had the slightest doubt as to the high and lofty patriotism that has always animated him. Dr. Depew is an American, and however pleasantly he may speak to the foreign brother over the cigars after dinner, he has always been a sturdy supporter of old President Monroe's doctrine that the British Lion should keep his paws off Manhattan Island, Delmonico's and the Vanderbilt lines. In addressing the G. A. R., Dr. Depew has even been known to become eloquent on this subject, and even to gently and in polished metaphor rotate the caudal appendage of that same lion.

And yet Dr. Depew is too brainy a man to blind himself to the signs of the times. Force he does not fear, as he knows that the country still has its new navy to protect it. So he snaps his fingers at the red-coated Tommy Atkins; but he soon becomes apprehensive when he sees how peaceful things seemingly are. It is in the guise of peace that Dr. Depew most fears the insular lion. He distrusts the "Greeks bearing gifts," for he sees the invader. This is how the doctor expressed himself on the subject at a recent dinner at Delmonico's:

"Precisely what we are to do with the English invasion I do not know. We stood them off pretty well in the wars of the revolution and 1812, but now they have bought our heroines. They have captured our patent medicines and our factories, and it seems as if we are to be fed, clothed and killed by Englishmen."

In referring to the buying off of the American heroine Dr. Depew knew whereof he spoke, and that he knew and bore no malice was evidenced by his closing words: "But we welcome them. We welcome genius from anywhere." Dr. Depew knew that it was the goods of the Crown Perfumery Company, of London, that had taken the American woman by storm, and he knew that there was no regaining her. That he did not denounce the invader might have been due to the fact that he had himself a dash of their famous Crab Apple Blossoms on his own immaculate silk handkerchief at the time he spoke.

Flies are not confined to tropical and temperate climates, but abound in the arctic regions. In fact, wherever man is, there also is the fly.

The precise antiquity of the fly is unknown, but that it was identified with the early history of the earth is certain, as numerous fossils of it have been discovered, and it is frequently found in amber and other fossil kums.

Besides the common house-fly, the best known are the "Zimb" fly of Africa, which effectually prevents the exploration of vast sections of that country, the Sand fly of Egypt, which attacks the eyes of travelers; the Crane fly (Daddy Long Legs), the Grass Eater; the Hessian fly, destroyer of wheat and other crops, the Bot fly, which attacks domestic animals, but the universal plague is the house fly, which, taken all in all, is perhaps the chief of domestic pests so far as the insect tribe is concerned. Not only does it cause such petty inconveniences as spoiling our food and tickling exposed portions of our anatomy, but causes are on record of their actually causing death. It is also a settled fact that flies are agents for the diffusion of infectious, epidemic and parasitic diseases.

Flies multiply with such great rapidity that the descendants of one female, if undisturbed from April until October, will number from 1,000,000 to 1,200,000. One fly caught in April will give more relief than 5,000 caught in July.

An exceedingly interesting history of the fly, its habits, uses, etc., will soon be published and gratuitously distributed by the Detroit Fly Paper Co., Detroit, Mich., manufacturers of Decey Fly Paper. Watch for it.

NO. 608 A WINNER. Even in an Off Year.

The favor with which our Perfumes are received in our new 8 oz. bulb bottle, No. 608, exceeds our most sanguine expectations. Nearly every wholesale drug house in the west and south now carry complete stocks, and can promptly fill orders for the leading odors at prices mentioned in the following select list:

	PER BOT.	PER BOT.	
White Rose.....	\$1.50	Crab Apple Blossom.....	1.50
White Heliotrope.....	1.50	Trailing Arbutus.....	1.50
White Lilac.....	1.50	Mignonette.....	1.50
Purple Lilac.....	1.50	Egyptian Lotus.....	1.50
Lily of the Valley.....	1.50	Patchouli.....	1.50
Jockey Club.....	1.50	Stephanods.....	1.50
Carnation Pink.....	1.50	Tuberose.....	1.50
Apple Blossom.....	1.50	New Mown Hay.....	1.50
Yang Ylang, etc.....	1.50	Rose geranium.....	1.50
Golden Rod.....	1.50	etc.....	1.50

SPECIAL ODORS.

Our special and trademarked odors in Style No. 68 list as follows:

	PER BOT.
Linden Bloom [registered].....	\$1.75
Pythian Bouquet [registered].....	\$1.75
Santa Maria [registered].....	\$1.75
Eastern Star [registered].....	\$1.75
Violet.....	\$1.75
Black Pansy.....	\$1.75
Extra Tonquin Musk.....	\$2.50
Extra Frangipani.....	\$2.50



No. 608, 8 Oz. Jackson, Mich.
Trade tributary to New York City can be supplied by McKesson & Robbins.

PATENT LEATHER.

Japanned leather, generally called patent leather, was first made in America, says the New Orleans Times-Democrat (Leather Mfr.,) by Seth Boyden, of Newark, N. J., 1819-20. A smooth, glazed finish was first given to calfskin in France. The leather is carried expressly for this purpose, and particular care is taken to keep it as free as possible from grease; the skins are then tacked in frames and coated with a composition of linseed oil and umber, in the proportion of eighteen gallons of oil to five of umber, boiled until nearly solid, and then mixed with spirits of turpentine to the proper consistency. Lampblack is also added when the composition is applied, in order to give color and body. From three to four coats of this are necessary to form a substance to receive the varnish. They are laid on with a knife or scraper. To render the goods soft and pliant each coat must be very light and thoroughly dried after each application. A thin coat is afterward applied of the same composition, of proper consistency to be put on with a brush, and with sufficient lampblack boiled in it to make a perfect black. When thoroughly dry it is cut down with a scraper having turned edges, when it is ready to varnish. The principal varnish used is made of linseed oil and Russian blue boiled to the thickness of printers' ink. It is reduced with spirits of turpentine to a suitable consistency to work with a brush, and then applied in two or three separate coats, which are scraped and pumiced until the leather is perfectly filed and smooth. The finishing coat is put on with special care in a room kept closed and with the floor wet to prevent dust. The frames are then run into an oven heated to about 175 degrees. In preparing this kind of leather, the manufacturer must give the skin as high a heat as it can bear, in order to dry the composition on the surface as rapidly as possible without absorption, and cautiously so as not to injure the fiber of the leather.

PARACELSUS.

The recent celebration of the quacren-tenary of Paracelsus' birth has evoked a number of more or less new and authentic anecdotes concerning the famous chemist, says Chem. & Drug. On account of Paracelsus' wandering habits it is almost impossible to trace his career in proper sequence. The period of his life which is best known is that from 1526, when, owing to the influence exerted on his behalf by Oecolampadius, he was appointed City Physician and Professor of Medicine in Basel. Paracelsus was a ruthless reformer, to whom old customs, unless founded upon common sense, were abominations; hence his constant quarrels with his fellow academicians. He gave his lessons in the German vernacular and was a determined enemy of Galenism and Arabism, then paramount in medicine. Paracelsus did much to simplify the composition of remedies and to introduce simple chemical bodies into therapy. In his personal habits, Paracelsus was exceedingly simple. He refused to wear the red official costume of physicians and professors, and consistently employed the German language (often an exceedingly simple variety of it) instead of the dog-Latin of his contemporaries. As a city

physician, he insisted upon the strict inspection of pharmacies, thereby rendering himself exceedingly unpopular with the pharmaceutical craft, so much so that insulting doggerel and other lampoons directed against him were frequently posted up in Basel-Market place by his enemies. The cause of his leaving the city was the result of an action brought by him in 1528 against a prominent cleric who had promised him a fee of 100 florins to be cured of an ailment. Paracelsus effected a cure by means of three opium pills, for which the church dignitary refused to pay more than the official tariff of six florins. The City Council found against Paracelsus, who at once left the city. First he went to Esslingen, where his family owned a house, which is said to be still standing. Then he wandered for ten years throughout Southern Germany and Austria, and finally died at Salzburg, in the Tyrol. Paracelsus has been reported to have been the author of 354 treatises, of which, however, only a portion was ever printed. Many of the works ascribed to him are probably spurious. The largest collection of his works is in the museum at Salzburg.

NOTES ON NUTS.

It was "chestnut night" with the Boston Druggists' Association at Young's, the other evening. Everybody had received orders to search his memory for "chestnuts," the older the better, and many a hearty laugh went round as the evening progressed. President Babcock's reading of "Notes on Nuts" was a feature of the occasion. The jingle is subjoined:

Poets have sung of the fruits of the vine
And their verses made many times o'er
In praises of wine—ambrosia divine,
Which the gods first revealed to old Noah.

But when has the bard been inspired to sing
By "Thoughts on Cas-tan-e-a ves-ca?"
This nut to him no affluat can bring,
Unless he's a wit or burlesquer.

I know I am neither, yet I shall try
On the chestnut to drop into verse.
I'm sure all I do will be nuts to you,
Though my poetry cannot be worse.

But why only at chest-nuts turn my hand,
When the woods are full of ev'ry kind?
I think I will try this theme to expand
And poetize all the nuts I find.

First on the list is that cud plebein,
To ev'ry rural citizen dear,
The nuts he doth munch as his fav'rite lunch,
Are called Ar-a-chis hy-po-gae-a.

We crush its crisp shells on the floor be-low,
In the theater, cars, and elsewhere.
Wherever we go, at circus or show,
Its rank fragrance impregnates the air.

There still remain nuts I must not omit,
Nuts (but for ice cream I cannot pass) by;
Or gall-nuts for ink; or nutmegs for drink,
Or custards or green apple pie.

Some nuts are so hard they cannot be crack'd,
Ideas on religion or marriage;
Nuts (but for ice cream I cannot pass) by;
Nuts on drug-mill or wheel of carriage.

Time falls me to discourse on all the nuts
Which grow in the woods or forest,
I'll stop my speed with the hazel and beech
Or you'll have to consult an aurist.

If we should adopt a national nut,
To place beside our fleur de patrie,
I'm sure the cake, would the peanut take,
As the nut of our native country.

There's a nut which grows in tropical clime
With dark leaves and blossoms sur-rounded—
'Tis the almond sweet—delicious to eat
Salted, plain or sugar-compounded,
At dessert the walnut finds its true place,
What is finer with coffee than these?
Their meats we transfix with silver nut-picks
Mid the smoke of cigars Havanae.
Though I started to write of the chestnut,
Upon this I've said scarcely a word,
But I'll bring what I've penn'd to speedy end
And cease writing these verses absurd.

MORAL.

Each nut is a seed which planted will grow
And in time will become a tree,
So our chestnut old are germs which unfold
In good will and fraternity.

ELECTRIC INDICATING THERMOMETER.—M. Barille (in Compt. rend., Pharm. Jour. & Trans.), describes an ingenious application of electricity as an aid in preserving a constant temperature during laboratory operations. An ordinary mercurial thermometer has the upper half of the stem somewhat enlarged in diameter, the lower, narrow portion alone being graduated. A fine platinum wire (a) is sealed into the bottom of the bulb, so that one end projects into the mercury, and a similar wire (b) is fixed into the upper part of the stem, running the whole length of the thickened portion. A third platinum wire (c) extends from a point about one-third the distance down the narrow graduated part of the stem, up past the free end of the second wire as far as the middle of the latter, round which it is then twisted in a spiral, whilst a steel needle to serve as an index is soldered to its extremity. Finally, the air in the upper part of the stem is replaced by orthotoluidine—which boils at 200 deg., freezes at -20 deg. and does not appreciably affect the mercury—the opening is sealed, and the thermometer fixed in a suitable copper frame, the lower part of which may be readily introduced into the openings in drying ovens, etc. A small, permanent horse-shoe magnet is next placed so that its poles are opposite the index, which it maintains in position by its attractive influence, so that the movable wire (c) becomes practically a prolongation of the fixed wire (b), along which it slides by means of the spiral. By sliding this magnet up or down the side of the thermometer tube a corresponding movement of the wire (c) also takes place. The free extremities of the wires (a) and (b) are attached to binding screws, which are in turn connected with an electric bell and battery. Now, when the surrounding temperature is sufficiently high to expand the mercury until it comes in contact with the lower extremity of the wire (c), the circuit is immediately closed and the bell rings; and by regulating the position of the permanent magnet, and consequently the steel index on the upper end of the wire (c) it is possible to fix the maximum temperature at any point desired.

ASAPROL.—A soluble derivative of B-naphthol, sulfonic ether of B-naphthol, as calcium salt, white powder, very soluble; resembles sodium salicylate as antiseptic, and remedy in acute articular rheumatism. Dose, same as the salicylate.

TRIKRESOL.—The preparation of cresols as a disinfectant for hygienic and surgical purposes is the subject of a paper by Dr. O. Liebreich (Therap. Monatsch.), who says: "The advantages and disadvantages of carbolic acid are sufficiently well known to warrant the search for substances free from its poisonous properties, that still retain its utility. Those compounds in close chemical relationship to carbolic acid were the first investigated. The nearest homologues of carbolic acid are the cresols which are also obtained from coal-tar, together with carbolic acid, and numerous other products. As represented by chemical formulae, in which one hydrogen atom of carbolic acid is replaced by a methyl group, it is evident that there are three possible isomeric modifications of the cresols. These three modifications of the cresols are all known, and are called respectively ortho-cresol, meta-cresol and para-cresol. The preparation of these bodies in a pure state is an extremely difficult operation, the principal difficulty consisting in their separation from each other when mixed, as their boiling points are very close. Ortho-cresol boils at 188° C., meta-cresol at 201° C., and para-cresol at 186° C. It is indeed possible to prepare them individually by the action of nitrous acid upon the corresponding toluidines or from the toluene sulphonic acids, in the same manner as carbolic acid is prepared from anilin, or for benzene sulphonic acid. Further ortho-cresol is obtained alone from camphor, meta-cresol from thymol, and para-cresol from the decomposition products of animal secretions. None of these methods are, however, sufficiently simple to admit of their economical application for the production of a medicinal product. The preparation of the three mixed cresols in a state of chemical purity must therefore be regarded as a great advance in chemical technology. The choice of the name Trikresol for the mixture of the three pure cresolic compounds is extremely fortunate as compared with the hyperphantastic and irrelevant nomenclature usually indulged in. In the crude carbolic acid, erroneously called 100 per cent carbolic acid, the cresols are contained together with other bodies. The great disinfectant value of this product is undoubtedly due to its percentage of cresols. It has been attempted to bring this so-called 100 per cent carbolic acid into a condition of practical utility by the addition of resin soap as solvent. This preparation, known as cresolin, yields a milky solution when mixed with water, but the lowered percentage of disinfectant ingredients, especially of cresols, and the irritant qualities of the solution of resin soap have placed certain limits on the use of this preparation. Lysol is a solution of the same product in sodium cresotinate. The solvent possesses no great disinfectant properties, and the composition of this preparation is as liable to variation as the former. Solinol has a similar character. Lysol is a solution of 100 per cent carbolic acid in soap solution. All these preparations have found useful employment in medical practice, but their use must be considerably limited by variation in the percentage of cresols or by the presence of deleterious bye-products. These facts are apparent in the diverse results obtained with them by different experimenters. The preparation of the cresols in a pure state demonstrates, however, that no special solvent is required to make an aqueous

solution. The pure cresols dissolve alone to the extent of 2 to 2.5 per cent in water at ordinary temperatures, and a ½ per cent solution suffices as a rule for external application, although the strength can be increased to 2 per cent as occasions arise. The cresols are indeed only insoluble when contaminated with either liquid or solid hydrocarbons, to the interesting experiments of Traubner, a 1 per cent aqueous solution of the cresols answers to all surgical requirements. This new product is therefore an important discovery, because it is now possible for medical men to prescribe trikresol in a series of preparations of constant composition, which were formerly only obtainable as specialties under various names and of uncertain composition."

ANTIPYRIN, ANTIFEBRIN AND PHENACETIN. though chemically not related to each other, are medicines which have enjoyed a considerable degree of therapeutic rivalry. As might be expected, some distrust has followed the popularizing of these remedies. In private practice there have been many grave cases of poisoning induced by one or other of the three analgesics, and reports were becoming so frequent that the British Medical Association deputed its therapeutic committee to inquire into the whole matter. The committee (says Chem. & Drug.) was presided over by the accomplished pharmacologist, Professor D. J. Leech, of Manchester, and the various branches of the association assisted in the inquiry. Experience in private practice was particularly aimed at, because a wider license than obtained in hospital practice is there given to patients in using the drugs, and consequently ill effects were more likely to be seen there. The points of the inquiry were: First, the amount of experience in the use of the drugs possessed by the observer; second, the doses habitually given; third, the nature of the ill effects; fourth, their frequency; and, fifth, opinions as to the usefulness of the drugs. As 20 reports were sent in, the inquiry has been sufficiently comprehensive to form a conclusive statement regarding the behavior of the drugs. The result showed antipyrin to be the most extensively used of the three analgesics, and antipyrin was stated to be a much safer drug in every way than antifebrin. As to the ill effects of antipyrin, it is noteworthy that 73 per cent of the reporters have never observed them in their practice; and in the case of those who have observed grave symptoms, there is no difficulty in tracing the trouble to excessive dosage. The ill effects produced were collapse and death (rheumatic fever) when 80 grains were given in five hours, collapse following such doses as 30 grains twice given, heart-weakness, depression, dyspnoea, loss of speech, temporary mania, cyanosis, etc., with doses of 15 to 20 grains repeated at intervals of from an hour to four hours. Cyanosis was rarely observed. Those who give antipyrin in doses of 10 grains or under have no experience of ill effects: it is those who give it in larger doses, or who allow it to be taken too frequently, who have supplied the committee with the above particulars. The same practically obtains in the case of antifebrin, but here the grave symptoms followed quite orthodox doses, viz: within the official limits of 3 to 10 grains—and the ill effects were rarely free from cyanosis. More-

over, the committee records the fact that antifebrin poisoning is much more frequent than antipyrin poisoning. In the latter case 27 per cent of the observers only have met with such cases, but in the former the percentage is 44; in fact, the committee puts the matter forcibly in saying: "Ill effects following the administration of antifebrin are both absolutely and relatively more frequent in their occurrence than is the case with antipyrin." It is also added that this is not due to excessive dosing alone, but to "its being less safe and less constant in its action than antipyrin." On the dose point the committee is quite stringent: "To give antifebrin in doses of 5, 6, 8 or 10 grains, still more to repeat these after a short interval, is a highly injudicious procedure. Such doses are altogether excessive."

There is little to be said about phenacetin, except that it "appears to have a notable freedom from injurious action. Seven out of 30 observers report ill effects, and it may be noted that 5 grains every three hours for three days has induced collapse, but the "drug appears to be in exceedingly good repute with those who have any extensive experience of it, more especially as an analgesic." Sir Andrew Clark usually prescribed 10 grains every hour to begin with, (for four doses, but ordered even larger doses when he had the opportunity of closely observing the effects. Whether the comparative safety of phenacetin is due to its slow dissolution or to its chemical constitution there is no evidence to show; but in all probability safety does not lie in slow dissolution, for acetanilide is as insoluble a body as phenacetin. The lessons which pharmacists may learn from the inquiry are that antipyrin and phenacetin should be generally given in doses of 5 to 10 grains, and should not be repeated oftener than every four hours. Antifebrin is unsafe in doses over 5 grains, and 2 grains of it is equal to 10 grains of antipyrin, but less certain in action.

PHENOL, CHLORINE AND BROMINE DERIVATIVES.—Para-chlorine phenol, crystalline; odor of phenol; slightly soluble in water. Ortho-brom-phenol is a violet-colored liquid. Both employed in the treatment of erysipelas; 1 to 2 per cent in ointment.

ANTISPASMIN.—A preparation consisting of one molecule of narecine sodium combined with 3 mol. sodium salicylate; contains about 50 per cent narecine. A very soluble and pure form of narecine. Recommended as hypnotic and sedative. Dose, 0.006 to 0.1 gms.

MALAKIN.—Salicylaldehyd-para-phenetid. Closely related to phenacetin. Yellow crystals, insoluble in cold water; contains about 50 per cent salicylaldehyde. Employed in muscular rheumatism, neuralgia. Dose, 4 to 6 gms. daily.

TOLYLANTRYPINE DERIVATIVES.—The chlorhydrat, isonitroso, monobromo and monolodo. These are all less soluble than the corresponding antipyrine derivatives, like tolypyrine itself, being only soluble 12 parts in 100 parts of water.

PHEDRETIN.—A phenol derivative, composition not given; tasteless white crystals, insoluble in water. Doses of 0.5 to 1 gm. a powerful diuretic.

MAGAZINES.

Outing is, as usual, full of interest to the lovers of nature and sports. It contains "Let No Man Put Asunder," by Annetta Josefa Halliday; "My Adventure With a Lion," by Herman Rave; "Modern Canoe Building for Amateurs," by Henry L. Strowbridge; "Quaint Artistic Haunts in Brittany," by Birge L. Harrison; "My First International Yacht Race," by Lieut. Wm. Henn, R. N.; "A Night's Sport in Cape Breton," by W. H. Mac; "A Race With the River," by L. Carew Shirley; "Stray Shots in the Land of Silver," by O. H. Howarth; "Fishing With the Spear," by Ed. W. Sandys; "Touring in Europe on Next to Nothing," by J. Perry Worden; "Six Months With a University Crew," by Ralph D. Paine; "A Morning With the Blue-Bill," by Ernest Willard, and "The Michigan National Guard," by Capt. Chas. B. Hall, 18th Infantry, U. S. A.

"The Ladies' Home Journal contains a very interesting article upon "How I Wrote 'Looking Backward,'" by Edward Bellamy. Portraits and sketches are presented of the wife of Robert Louis Stevenson, and of the wife of E. S. Willard, the actor. Alexander Mackenzie-Hughes has an article upon "The Care of a St. Bernard Dog;" Madame Blanc discusses "American Mistakes About French Women;" Mrs. S. T. Rover tells of "Wedding Breakfasts;" Palmer Cox shows the "Brownies in Florida," and W. D. Howells continues the recital of "My Literary Passions."

Popular Science contains a continuation of the series of papers by Dr. Andrew D. White, entitled "New Chapters in the Warfare of Science," giving a brief sketch of the early theological teachings regarding animals and man. George A. Rich argues affirmatively on the question "Trusts Their Own Corrective." Prof. Joseph LeConte gives "New Lights Upon the Problem of Flying." "The Methods of Homing Pigeons" are discussed by C. F. Hodge, Ph. D. W. Lodian writes of "A Century of the Telegraph in France;" Prof. A. R. Wallace of "The Ice Age and Its Work;" Prof. James H. Dana "On New England and the Upper Mississippi Basin in the Glacial Period;" Horace T. Martin, of "The Beaver Eater;" Herbert Spencer of "The Late Professor Tyndall;" M. Lazar Popoff of "The Origin of Art," and W. W. Billson gives "An Illustrative Chapter on Legal Development."

Lippincott's has for its complete novel "The Flying Halcyon," by Richard Henry Savage; and the other stories are "Cap'n Patti," by Ella W. Peattie; "For Remembrance," by Elizabeth W. Bellamy; and installments of the serial "The Trespasser," by Gilbert Parker. Other articles of interest are "The F. M. C.'s of Louisiana," by P. F. deGournay; "The Librarian Among His Books," by Julian Hawthorne; "Hawaiian Traditions," by Abraham Formander; "Co-operative Housekeeping," by H. C. Walsh; "Storage Battery Cars," by George J. Varney; "Heroines of Human Comedy," by Junius Henri Browne.

St. Nicholas' feast for the young people is made up as follows: "Our Wolves and Foxes," by W. T. Hornaday; "On a Glacier in Greenland," by Albert White Vorse; "The Real Sunflower," by Rudolph Francis Bunner; "Recollections of a Wild Life," by Charles A. Eastman; "Too Sharp for the Czar," by David Ker;

"San Francisco," by Charles H. Shinn; "Mrs. Cecile Viets Jamieson," by Olive Otis; "The True History of the Flood," by Mary Bently Thomas; "Barfoddis," by Francis E. Gifford; "A Letter From Bruin Polar Bear," by F. S. Church; installments of the serial "Jack Ballister's Fortunes," by Howard Pyle, and conclusions of "Toinettes Philip" and "Tom Sawyer Abroad."

The Literary Digest, which has been lately enlarged, shows a very attractive array of live topics in its number for March 29. Among these are papers on Nationalization of Railways; The Canadian Premier and the President of the United States; A German View of Socialism in the United States; The Elmira Reformatory; Sound Economics in Congress; A Frenchman's Opinion of Female Education in the United States; Electricity in Art; Russian View of the American Press; Egypt in the Time of Moses; Ancient Churchmen and Politics; The Fatherhood of God; Ocean Vegetation, etc. Published by Funk & Wagnalls Company, 18-20 Astor Place, New York.

The North American Review shows an array of matter which is exceptionally interesting. Cardinal Gibbons contributes an article entitled "Personal Reminiscences of the Vatican Council;" Justin McCarthy writes of "New Parties in Parliament;" Hon. Wm. F. Wharton of "Reform in the Consular Service;" Hon. Thomas H. Carter of "The Republican Outlook;" Charles H. Cramp of "Our Navigation Laws;" Robert A. Pinkerton of "Forgery as a Profession;" the President of Brown University of "Tariff and Monetary Reform;" Dr. Louis Robinson of "Wild Traits in Tame Animals;" Arthur Silva White of "An Anglo-American Alliance;" Dr. Joseph H. Senner of "How We Restrict Immigration;" Governor Stone, of Mississippi, of "The Suppression of Lawlessness in the South," and Mark Twain gives a "Private History of the Jumping Frog" Story.

The Century has for its frontispiece a portrait of Matthew Arnold, and another notable artistic feature is a story told by pictures by the well-known artist Andre Castaigne, the subject being the course of the emigrant "From the Old World to the New." The literary features consist of "Mors Benifica," by Edmund Clarence Stedman; "Ellen Terry in the Merchant of Venice," by Thomas Bailey Aldrich; "My First and Last Balloon Ascention," by Robert V. Sewell; "Answered," by Richard Henry Stoddard; "Sophocles Leading the Chorus of Victory," by John Donohue; "A Comet Finder," by Frank W. Mack; "Wild Flowers of English Speech in America," by Edward Eggleston; "Pit Matinee Monotones," by Geo. Wharton Edwards; "A Summer Month in a Welsh Village," by Susan Nichols Carter; "The Quest of the Arbutus," by Charles G. D. Roberts; "The Supply at St. Agatha's," by Elizabeth Stuart Phelps; "Driven Out of Thibet," by W. Woodville Rockhill; "Miller's Life at Barbizon," by Pierre Millet; "Hunting an Abandoned Farm in Connecticut," by W. H. Bishop; "Gods of India," by F. Marion Crawford; "Matthew Arnold," by Florence Earle Coates; "The Red Box at Vesey Street," by H. C. Bunner; "Out of Sight, Out of Mind," by George E. Waring, Jr., and installments of the serial "Coeur d'Alene," by Mary Hallock Foote. The Atlantic Monthly presents both a

political and warlike aspect. The former is represented by "The Referendum in Switzerland and America," by O. Lawrence Lowell, and "Some Causes of the Italian Crisis," by W. R. Thayer; the latter by "General Lee During the Campaign of the Seven Days," by Eben Greenough Scott, and "War's Use of the Engines of Peace," by General Joseph L. Brent, of the confederate army. "Early Latin Poetry" is the subject of an able article by Professor Tyrrell, of Trinity College, Dublin. Richard Burton writes of "Nature in Old English Poetry;" Mrs. Olive Thorne Miller of "Secret of the Wild Rose Path;" Mrs. Elizabeth Cavazza of "Jerry: a Personality;" Agnes Repplier of "Opinions," while "The Windigo," by Mrs. Catherwood, and installments of Mrs. Deland's "Philip and His Wife" make the number strong in fiction.

The report of the Commissioner of Patents for the year ending December 31, 1893, shows that there were received 37,233 applications for patents; 1,060 applications for designs; 12 applications for reissues; 2,247 caveats; 1,899 applications for trademarks; and 401 applications for labels. There were 23,670 patents granted, including designs; 99 patents were reissued; and 1677 trade-marks were registered. The number of patents which expired was 14,172. The number of patents which were by operation of law forfeited for non-payment of the final fees, was 1,102. The expenditures were \$1,141,033; the receipts over expenditures were \$101,833, and the total receipts over expenditures to the credit of the patent office in the treasury of the United States amounted to \$1,281,743. At the close of the year there were 6,264 applications awaiting action.

The camphor tree has been tested in California and seems well adapted to that state. In the recently issued digest of experiment station work the following occurs: "A tree is instanced 45 feet high, branched low and fully 2 feet through at the base, at an age of about twenty years. There is no doubt that the tree will be found to be adapted to a large portion of the state, and will grow without irrigation, wherever a pear tree will succeed without it. Aside from the value of the drug, the wood, which generally does not enter into its manufacture, has a high value for a number of purposes, and would perhaps alone compensate for the cost of rearing the plantation, leaving the root, young branches, and foliage (the camphor-producing material) at a nominal cost.

To obtain a genuine Russia odor on Russia calf and sides, the following process has been patented in Germany (Patent No. 71,072): The leather is treated with ordinary birch tar in the usual way and then goes into a bath of willow bark or into a weak solution of salicin in alcohol. This procedure has the effect of changing the birch tar to a rubbery, waterproof substance, and at the same time takes away the acid or tarry smell. The solution of salicin in alcohol is obtained by dissolving 115 grammes of salicin in half litre of 95 per cent alcohol, and 100 litres of water.

The Leather Manufacturer has tested this process and found that it sweetens the odor of Russia leather in a remarkable degree, entirely taking away the disagreeable, tarry smell and leaving the delicate odor of refined birch tar oil.

THE MARKETS.

The fluctuations noted in this market report are those affecting goods in original packages and jobbing lots. A complete price list, showing quotations as made by jobbers to retailers, will be found upon another page under the head of "Prices Current."

Advanced—Quicksilver, Cantharides, Saffron, Anise Seed, Celery Seed, Oil Peppermint, Orange Peel, Spermaceet, Curacao Aloes.

Declined—Optum, Alcohol, Damiana Leaves, Ergot, All Orange, Oil Wintergreen, Jalap, Menthol, Cubeb Berries.

New York, April 7.—The general movement of supplies into channels of consumption during the past two weeks has been of only moderate volume, and the anticipations of dealers have not been realized; in fact, the market has been comparatively quiet, and expressions of disappointment frequent. The dullness of trade in some commodities has influenced a weaker feeling among holders and a consequent decline in values, but, on the other hand, a number of advances have occurred as the result of natural causes, and, generally speaking, the market has a fairly steady undertone. The speculative element is almost entirely eliminated so far as operations in the drug line are concerned, and transactions of magnitude are exceptional. Tariff agitation is still a disturbing factor, and the articles in this department most likely to be affected by the proposed changes are naturally more or less unsettled. Consumers are still pursuing a hand to mouth policy by purchasing only in accordance with actual current necessities, and business is almost exclusively of a light jobbing character, the larger buyers evidently preferring to await future developments. Values in many instances are unusually low, and in others supplies are likely to fall short of consumers' requirements, consequently holders of those articles are not anxious sellers, and the outlook is favorable for improved prices in the event of any important increase in demand.

OPUM.—The downward tendencies of values has continued during the interval under review, and a further decline of 26 to 27 cents per lb. is recorded without stimulating interest from either large or small buyers. The depressed condition of the market is attributed to lack of orders and unusually heavy receipts, the latter being due to the anxiety of importers to increase their holdings before the anticipated duty becomes operative. The arrivals since January 1 are fully abreast of the total imports of last year, and as the larger consumers and manufacturers are abundantly supplied, it is not surprising that dullness and depression should be the characteristic feature. Various rumors are current regarding the proposed tariff on this article, and some predict that a 22 per cent duty is probable. In any event, there is nothing at present to warrant an early improvement, and buyers are evidently looking for still lower prices.

POWDERED OPUM.—Continues to decline in sympathy with the gum, and purchases are limited to actual necessities.

MORPHINE.—Is without quotable change, and the bulk of the business in progress is confined chiefly to deliveries on contracts.

QUININE.—Has ruled fairly steady up to within the past few days, when an easier feeling developed owing to pressure

to sell on the part of several holders having a surplus, by reason of deliveries on contracts expiring on the 1st inst. The accumulation of stock is due to a falling off in demand, no large orders having been received recently and the anxiety to realize has apparently had the effect of inducing buyers to hold off. When supplies are again wanted to any material extent a reaction will probably follow, and the present condition of affairs is considered only temporary. It was generally expected that by this time foreign manufacturers would announce, through their agents, a further advance, and their failure to do so has caused considerable disappointment.

LOD LIVER OIL.—Values have reacted slightly from the extreme figures quoted two weeks ago, but there is no disposition shown by holders to part with round lots at the decline, and there are indications that a higher range of prices is likely to be established. Much will depend on the final result of the Flinmarken fisheries, which will probably be known within a few weeks. The Lafoten catch was only one-half that of last year, the Søndmøre a total failure, and up to date only unfavorable accounts are to hand from Flinmarken. It is claimed that the consumption in this country is steadily increasing, and that there is every prospect of a material shortage, and consequently most of the holders offer only sparingly.

ALCOHOL.—There is a continued unsettled and irregular market for Grain, with increasing competition from independent producers. The combination to-day announce a reduction of 6 cents per gallon, with the usual rebates. Wood is ruling steady at unchanged prices, with moderate trading in limited quantities.

QUICKSILVER.—Values were marked up 2 cents per lb. by the Pacific Coast combination of producers, but subsequently reacted 1 cent owing to free offering from dealers here.

BALSAM COPAIBA.—A moderately active consuming demand is reported mainly for Central American, but values are without quotable change. Other varieties are quiet and nominally steady.

BALSAM FIR.—Little or no interest is shown in either Canada or Oregon, and quotations are nominal in the absence of business.

BALSAM PERU.—The advance previously noted is firmly maintained, and offerings are limited to actual wants of consumers. The bulk of the stock is closely concentrated, and still higher figures are predicted by the principal holders, as there are no fresh supplies known to be on the way from primary markets.

CANTHARIDES.—Chinese have been receiving increased attention, and with the available stock under good control, values are hardening and some holders are quoting 3 cents per lb. higher.

DAMIANA LEAVES.—Are easier, and recent transactions show a decline of 16 to 12 cents per lb.

SAFFRON.—The principal holders of American have again advanced their views and values are 3 cents higher. The Alicante variety of Spanish is also higher owing to reduced spot supplies.

ERGOT.—Is exceedingly dull and offers to sell at concessions from previous prices (a) to attract buyers.

SENNA.—All varieties of both Alexandria and Tinnevely are in good, steady request from consumers, and values are

well sustained with intermediate grades of the latter tending toward a higher basis. Late advices from abroad indicate that the last crop is all in sight, and shows a considerable shortage.

ANISE SEED.—All kinds are becoming scarce, mainly owing to liberal purchases for export, and values are decidedly stronger, with Italian and Russian showing a higher range.

CORIANBER.—Is offering in a small way only, and sellers adhere firmly to the recent improvement in prices.

MUSTARD SEED.—Unfavorable crop reports have influenced a firmer tone to the market for California, but former prices are still acceptable.

CELERY SEED.—Has materially improved owing to the successful termination of efforts to control the entire visible supply. The manipulations of the markets both here and abroad were conducted with considerable skill, and the result is that only two firms are able to fill orders of any magnitude. A few small lots are still obtainable from outside holders, and as soon as they are disposed of a further advance is probable.

OF ORANGE.—A further reduction of 5 cents per lb. in Sanderson's brand and a corresponding decline in other grades is noted.

GOLDEN SEAL ROOT.—Is moving more freely and a firmer feeling is noted, with values indicating an upward tendency.

JALAP.—Is weaker under increased offerings. New root has been coming to hand quite freely, the arrivals being unexpectedly heavy, and the steady shrinkage in values has influenced dealers to hold off and not lay in their supplies until something more definite is known regarding the extent of the current season's output. Meantime stock is accumulating in first hands.

OIL PEPPERMINT.—The oil has developed no important feature or quotable change in prices, but H. G. H. is firmer, with sellers' views about 5 cents per lb. higher.

MESSINA ESSENCES.—Are without further change, but a revision of prices is anticipated shortly.

ORANGE PEEL.—The variety known as thick Malaga is exceedingly scarce, and extreme prices are asked for the few remaining bales in the hands of dealers. It is claimed that none was prepared this season at primary sources of supply, and that all markets will soon be exhausted.

DRAGON'S BLOOD.—Reeds are very scarce, and the limited stock is held with increasing firmness.

SPERMACEET.—Is higher under an improved demand and decreased stocks in manufacturers' hands.

TONKA BEANS.—The current demand is slow, but holders maintain firm views owing to exceedingly small stocks in first hands, together with unfavorable reports concerning the new crop.

MENTHOL.—Is offering at about 25 cents under previous quotations, and the tone of the market is easy.

CURACOA ALOES.—Show increased activity and a fractional advance in prices.

ASAFOETIDA.—Is in better supply, and the quality of recent arrivals is much finer than usual, owing to the restrictions adopted by the custom house authorities. Assortments show a much greater variety and a consequent wider range of values.

CUBE BERRIES.—Values show a lower range, and only small jobbing parcels are moving.



HENRY TRIMBLE.

IN this series of sketches of men who have gained prominence in the education of youth in the science and art of pharmacy there must be included that of Professor Henry Trimble, of the Philadelphia College of Pharmacy, whose courses of instruction in chemistry have won for that institution very favorable renown. Henry Trimble, the son of Stephen Trimble, was born May 22, 1853, at Chester, Pa. In his youth he attended regularly the Westtown boarding school in Chester County, receiving a very thorough general education from that well-known school. He was apprenticed in the drug business in 1872 and supplemented this equipment by the regular course of study in the Philadelphia College of Pharmacy, from which he received his diploma in 1876. Later, he passed two years at the University of Pennsylvania, pursuing special studies in organic and analytical chemistry, serving, as well, one year as assistant in organic chemistry. On May 28, 1878, he formed a business partnership with C. W. Warrington, with

whom for five years he conducted a retail drug business at the corner of Fifth and Callowhill streets, Philadelphia. In 1879 he was made assistant to Professor Sadtler at the Philadelphia College of Pharmacy, and four years later was appointed full professor of analytical chemistry in the college. In this connection he has since served, and during all the time he has had charge of the analytical laboratory he has directed many original investigations with students, the results of which have been published in the American Journal of Pharmacy, partly under the joint names of himself and student and occasionally in the name of the student alone. His own investigations have been largely with the class known as the tannins, and with which subject his name will certainly be linked indissolubly in the future scientific literature. These investigations he has collected together in a most valuable and comprehensive monograph "The Tannins," of which Volume I. was in 1892, and the second volume is now in press. This work has been very

favorably received both in this country and abroad. His "Hand Book of Analytical Chemistry," first published in 1885, has gone through four editions and has been used in a number of schools. It will be merged after this year in the larger "Text Book of Pharmaceutical Chemistry," which he is preparing with Prof. Sadtler, and which new and comprehensive work is promised for this fall.

Professor Trimble, on March 26 of the present year, was unanimously elected editor of the American Journal of Pharmacy, to succeed Professor John M. Maisch, who for many years had so ably presided over the destinies of this valuable journal. Professor Trimble has been a frequent attendant on the meetings of the American Pharmaceutical Association, to the proceedings of which body he has contributed a number of most valuable papers. His name and fame are widely known among pharmacists and chemists, not alone in this country, but abroad.

ENTERED AT THE DETROIT P. O. AS SECOND-CLASS MATTER

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EDITORIAL.

THE ERA AND ITS REMOVAL.

The present issue marks an important epoch in the life history of the Era, the point where to farther advance in its mission, to foster and further the best interests of its clientele, the drug trade, it must be placed in closest touch with enlarged sources of supply in material for its reading pages and in business patronage. When the Era first saw the light in January, 1887, little foreseen were its rapid and healthful growth and its quick attainment of a position as leader among pharmaceutical journals. From the start the support received was most encouraging to its founders, and each succeeding issue found changes of one or another nature necessary to accommodate increase of material and to widen its field of usefulness. Its history is told with some minuteness elsewhere in this number, here it but remains for it to take leave of its friends in its birthplace and to bespeak the kindly welcome of the trade of the city it now makes its home.

Though the Era has at no time been a local publication, still it is with heartfelt sorrow that the publisher and the members of the editorial and working force, bound in close social and business ties to Detroit, which has loyally stood by the Era in its early struggles, and rejoiced and shared in achieved prosperity, must see a loosening of these bonds, but be it understood that these ties are but loosened, not sundered, and remain to connect us in closest sympathy and accord with Detroit's drug trade. In its several branches. Will our Detroit and Michigan friends receive these expressions of regret as a faint measure of our appreciation of their cordial and generous support, which has augmented whatever portion of success that has rewarded our efforts.

The Era goes to New York because that city is the head center of drug affairs in this country. The drug business is there represented more fully in each of its many ramifications, general and side lines, than in any other city in the United States. For widest connection with the best of trade and professional literature, for latest reports of market fluctuations, for prompt notice of trade and news happenings New York offers superior advantages, advantages which the Era will enlist in its service to supply its readers with what is latest and best in all matters pharmaceutical. To bring the Era as a drug journal still nearer to our ideal, this move we believe a wise one.

For the cordial welcome and the liberal

patronage already extended to us by the New York trade we are truly thankful. With a desire to do our part conscientiously we accept these evidences of good wishes, and shall try to merit them.

THE SANITARY CHEMIST.

Dr. Vaughan, than whom none stands higher as an authority on sanitation, sketchily outlines the duties and responsibilities of the sanitary chemist. The sanitary expert stands as a protector of the people against the countless sources of disease and infection, whose nature and methods of manifestation and dissemination are almost unknown to the public. Milk and water, the most valuable and the most innocent of products for the supply of human needs, may under certain circumstances, become the active propagators of disease, and it is in the examination of these articles that the sanitary chemist finds his greatest responsibility. A word is said about the adulteration of food products in general, with the implication that greater care should be exercised by our law-makers and law executors in the protection of the people against cheapened or dangerous articles for consumption.

HOW AND WHAT TO STUDY FOR EXAMINATION.

We have pleasure in presenting a practical paper which outlines a course of study prescribing definite work and definite hours for the guidance of embryo pharmacists in the preparation for examination by the state boards of pharmacy. The paper is a timely and valuable one and serves to answer well the host of inquiries which come to the editors of pharmaceutical journals. There are many young men who have entered upon pharmacy as a life work, who are unable, through force of circumstances, to acquire the systematic training afforded by the college of pharmacy, and who find it necessary to fit themselves by home study for the duties of their profession. This class will find the suggestions of our contributor of great pertinence and assistance in their work, and we heartily commend the paper to their attention as a thoroughly practical and reliable exposition of the subject.

ARE ANILINES POISONOUS?

Prof. Leffmann gives us an interesting and instructive paper in this number in answer to the query which serves as a heading to these few remarks. Some time ago we received Weyl's valuable book on aniline colors, and gave the substance of his conclusions that the majority of these colors were not toxic, though to be sure, in the minority are a few which must be used with caution. It is gratifying to be told by our contributor that his conclusions are of the same nature, and that as a rule aniline colors may be used with confidence in their safety. He points out those whose employment is safe, but the most important portion of his paper is that which deals with the misnaming and misbranding of colors, whereby a dangerous one may be mistaken for an innocent one. Instances where similarity in names has led to serious results are not rare in pharmaceutical history, and it is to be regretted that manufacturers of colors are so lax in assigning proper designations to their

products, which designations shall in some manner indicate their nature. Fanciful and arbitrary names should not be employed in exact science. We are glad in presenting Prof. Leffmann's paper that this matter is brought to attention, and we are sure that the information given by the writer will be of great practical benefit to pharmacists.

EXAMINATION QUESTIONS.

The answers to Series No. 2 are given in this issue. In looking over the replies it has been observed that they are either very good or very bad, showing that the drug clerk is either posted or not posted. To paraphrase an old doggerel, "When he is good, he is a very good indeed, but when he is bad, he is horrid." But we would emphasize one very important criticism, that too little familiarity with the pharmacopoeia is displayed. The revision of 1890 has been official since January 1, and the book was procurable for some three months prior to that date. In a number of the questions it is distinctly required that the official requirements or descriptions be given, and failure to do so constitutes a faulty answer, though the reply may be correct in all other particulars. One object of these questions is to stimulate study of the pharmacopoeia, and the pharmacist has no excuse for unfamiliarity with his official guide. The pharmacopoeia should be his ever present reference and text book.

These examination questions elicit hearty commendation from those who have grown old in the harness, as well as from the clerk and apprentice. The former find them of service in "brushing up," and the latter are shown the directions in which to prosecute their studies. The liberal response is very gratifying proof of the value of the feature.

EVOLUTION IN EDUCATION.

During the past two or three decades there has been a notable evolution in the methods employed in teaching the professions and sciences. The changes pertaining to this evolution have not at any period been very marked or revolutionary in character, but the result has been that, comparing the present status of educational methods with those obtaining twenty years ago, there is seen a very great departure from methods then generally enforced. Nowhere have these changes been more noticeable than in the teaching of pharmacy. While realizing to the fullest extent the value of theoretical information, practice has been insisted upon, and to-day our schools are equipped with every facility for training the eye and hand as well as the mind. It is not very long ago that all the students of colleges were forced to take the same courses of study without regard to what might be their after position in life and the requirements of their chosen calling, but we have recognized the fact that the purpose of all knowledge lies in its application to everyday life and its ability to earn for one a living. There are, in our advanced institutions, opportunities presented to the student for pursuing his studies in whatsoever direction he may desire in order to equip himself for after life. While didactic lectures will never lose entirely in importance, much attention is now paid to manual training. Our

colleges of pharmacy have their laboratories for chemical, pharmaceutical, botanical and microscopic work, and the student of the present day has placed before him facilities for adequately qualifying himself for the responsible duties he is to assume.

WHAT OUGHT TO BE THE CHARACTER OF SCHOOLS OF PHARMACY?

It is a question that concerns every pharmacist, whether he or his ever studied in the college or not. It may be answered, first, the school of pharmacy should hold its doors wide open to any practicing pharmacist to study any branch of the profession to any extent he may desire, with libraries, laboratories, lectures, museums, and living authorities at command. In the second place it may be set down that the school of pharmacy, like the school of medicine, or that of mechanics, should be of university grade, so far as the order of secondary education in this country makes it possible. The course of study for graduation should be as severe, as well advanced, and not less than two-thirds as long as that for graduation in medicine. It is desirable that the college year should be as long as nine months, unless more than two college years be taken. The entire time of the student should be held during the term, unless, indeed, much more than two college years be required. The value of the diploma of graduation in pharmacy should not be lower, in an educational point of view, than the best value of medical graduation in this country. And above all, the standard of entrance into the school of pharmacy, for its students in course toward graduation, should not be lower than good high school graduation, whether medical schools preserve this standard or not. With open opportunity for every registered pharmacist to study in the college, the honor of its degree should be given only to those of good culture, full scholarship, and trustworthy training in the college work. In the third place the school of pharmacy should be a place of research, a source of contribution to science, and it should be provided and sustained to this end. In this service of original work alone the school can return to the world more than the cost of its maintenance.

OUR MOVING DAY NUMBER.

With much feeling of pride and satisfaction we present to the drug trade this special issue of the Era, which commemorates its removal from Detroit to New York. We believe it to be the most elaborate and expensive of anything ever issued by an American drug journal, and the edition, if we are correctly informed, is the largest of any drug paper in this or any other country. In preparing this MOVING DAY NUMBER we have had most liberal support from our advertising patrons and contributors, given expression through exercise of the highest resources of the lithographer, engraver and printer. Among the attractions of the number we would mention the variety and volume of the reading matter, covering a wide and appropriate range of subjects, including several specially prepared papers, thoughtful and practical, from well-known writers. The history of the Era and description of the methods of its production are of interest, the pages devoted to the New York drug trade

constitute an instructive section, and the several articles descriptive of well-known manufacturing houses and their business careers are not lacking in appropriateness. In illustrations there is great profusion, all of artistic excellence and high grade mechanical execution. The beautiful lithographed cover bears designs appropriate to the occasion, and is commended to notice and preservation for its intrinsic worth. The advertising pages are abundant, their appearance and variety attracting attention and winning commendation. It is unnecessary to further specify the features of this number. We are proud of it, and are positive its recipients will acknowledge the justice of this pride. Over twenty tons of paper were required to satisfy the appetites of the printing presses in its production, and in other directions the outlay of labor, time and money has been equally generous.

To our contributors and advertising patrons we extend our hearty thanks for their co-operation in the preparation of the number, and to the firms whose widest facilities were exercised in its production. We are specially indebted to Messrs. Geo. H. Buek & Co. and the Moss Engraving Co., of New York; and to the Peninsular Printing & Publishing Co., the Record Printing Co., and the Richmond & Backus Co., of Detroit, for their careful attention to mechanical and artistic details.

FAULTY TEACHING.

Recently we published a few criticisms upon a lecture delivered upon the subject of incompatibility. Elsewhere in this issue we present a rejoinder from the gentleman who delivered the lecture in question. We publish his reply for the reason that we always wish to give every man opportunity to maintain his own position and present his views in matters of this sort, and not that we are at all convinced by his presentation of the case, on the contrary we believe our statements better established by his reply. The quotations from various authorities which he gives are not, as he believes, in support of his own position, but of ours. Notably those from Roscoe, who says that chlorine is found in hydrochloric acid as an impurity and that hydrochloric acid changes calomel to corrosive sublimate. Both of these statements are true, but their application is not such as Prof. Kennedy would have it. A trace of chlorine may possibly be found in hydrochloric acid, but the oxidation of calomel is not due to this impurity, as the lecture states. The change is occasioned by the hydrochloric acid itself, the calomel undergoing a double decomposition, a reduction and an oxidation, both free mercury and mercuric chloride being formed.

So in the case of nitrous ether. Acetic acid, it is true, is present, but acetic acid itself is not an oxidizer of potassium iodide. This oxidation change is caused by the nitrous compounds, and takes place in acid mixture, and we ask is it not generally the case that nitrous ether is acid, notwithstanding the requirement of the Pharmacopoeia that it be neutral? But, were it not acid, the condition of the pharmacopoeial test that sulphuric acid be added in prescribed amount, conduces to the oxidation change. We do not take exception to Prof. Kennedy's statement that calomel in the one case and potassium iodide in the other are oxidized, but

we do object to the assertion that these changes are occasioned by free chlorine and by acetic acid, respectively. We are content to leave the case to the decision of chemists and pharmacists in general.

DISPENSING BY PHYSICIANS, PRESCRIBING BY PHARMACISTS.

There have been numerous attempts before our state legislatures to pass acts allowing physicians full privileges as pharmacists. Druggists and pharmaceutical journals have unitedly protested against such propositions, in the majority of instances with success. There are some states, however, which allow physicians to register as pharmacists without examination, simply through virtue of their possession of diplomas as physicians. The question obtrudes, why should or should not the physician be allowed the privileges of a pharmacist? Does a medical training include experience which fits one for the duties of pharmacy? We think he who knows what is the training of both the pharmacist and the physician will assert with emphasis that the course of study prescribed for either does not include the branches of learning which will fit him for the duties of the other calling. The physician in his college course masters many branches which never enter into the studies of the pharmacist, and vice versa. The doctor gives but little attention to materia medica and chemistry, his studies being devoted to the mastery of the mysteries of the human body and to the acquirement of facility in correct diagnosis. The pharmacist, on the contrary, makes chemistry and materia medica his principal studies, being impressed with the necessity of familiarizing himself with the natural history, therapeutic uses and incompatibilities of drugs. As a result of this condition of affairs a contemporary very aptly says that when the two meet professionally the pharmacist gets to sound only the shallowest depths of the physician's learning, while the physician beholds the pharmacist at his best. We make the statement with all belief in its soundness and truth that the physician is not a competent pharmacist and the druggist is not the possessor of sufficient medical knowledge to qualify him for prescribing, and when the doctor wishes to compound medicines and the druggist desires to prescribe for the sick, each is encroaching unduly upon the professional privileges and domain of the other.

RED CROSS AS A TRADE-MARK.

On account of its attractive and artistic qualities many manufacturers of this country have adopted and have been using for years trade marks whose distinctive features are a red cross. It will be remembered that in 1864 nearly forty nations, including the United States, agreed upon a treaty which had for its aim the mitigation of the evils of war by providing for the use of a red Greek cross upon a white background to be displayed upon the persons of the members, appliances, buildings, etc., of the Red Cross Society. It is claimed that the use of this insignia by private parties is a serious embarrassment to the military forces of the country during a time of war. To obviate these difficulties there has been passed in the house of representatives a bill (No. 5580) which has already reached the sen-

ate and been referred to the committee on foreign relations. As there is a possibility that the legislation may affect some drug manufacturing firms we give the text of the bill below:

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, that from and after the passage of this act it shall be unlawful, except as hereafter described, for any person or association of persons within the jurisdiction of the United States or of any territory, to give, sell, distribute, or display the symbol of the red cross heretofore designated, or any colorable imitation or semblance thereof, or to use the same, or to use the same, or as a designation or part of a designation the words "red cross," or any expression liable to be mistaken therefor; that every one not directly connected with the American National Red Cross or without special permission granted by the central committee of the Red Cross is hereby forbidden to use, or to use, or to wear, or to use, or in any way displaying the sign of the Red Cross, heretofore described, or in anything liable to be mistaken for such name and insignia, and any person so offending shall be deemed guilty of misdemeanor, and upon conviction thereof shall be punished for each and every offense by a fine of not less than fifty dollars, or more than five hundred dollars, or by imprisonment for a term not exceeding six months, or by both such fine and imprisonment; the fine so collected shall be paid to the American National Red Cross to be used by it as it shall consider the best interests of said organization. All persons who have adopted or used the red cross as a trade mark shall, within one year after the passage of this act, discontinue the use of the same or be liable to a fine of not less than fifty dollars or more than five hundred dollars and confiscation of said articles of whatever description, unless the central committee of the American National Red Cross gives them special written permission to do so for which privilege a consideration of not less than five hundred dollars shall be paid to the said committee; all fines, consideration of money, and articles of value shall be turned over to the American National Red Cross to be used as it considers appropriate. Any person or persons not directly connected or authorized by the American National Red Cross making or attempting to make collections of money or goods for or in the name of the red cross shall be liable to a fine of not less than five or more than one hundred dollars or imprisonment for a term not exceeding one year: Provided, however, that this section shall not be held to apply to the officers or agents of the United States of America especially authorized by law to use the name and such officers and agents of the said organization as may be designated to aid in the work for which such organization was incorporated under the Government of the United States; and, second, to the agents of any foreign State acting with the knowledge and consent of the Government thereof and of the President of the United States first mentioned and obtained: Provided, that this section shall not apply to secret organizations such as the Knights Templar, Masons, or the badge of the Sixth Corps of the Army, who adopted a red cross in the Order of the Twelve on the second day of August, eighteen hundred and sixty-four.

The drug store loafer is a common nuisance. He is described, by one who has met him, as too mean to go out with the boys, too lazy to stay within his own domestic circle and entertain his wife. He loafs around the drug store, buys a cheap cigar and scents the entire neighborhood with its vile fumes. He evidently takes delight in his skill as an expiator, as evidences thereof are to be seen in all directions. A word of advice to all druggists afflicted with this unbearable bore, kick him out. You lose his cheap and scanty custom, but you gain in the esteem of your more respectable patrons, whose approbation and recommendation will bring you good returns.

A druggist who has no license to sell spirituous liquors cannot knowingly sell them for use as a beverage, even after they are compounded with other ingredients into medicines; and where the evidence clearly shows that he must have known the purchasers bought them for consumption as a beverage, and for the sake of their intoxicating property, it was not reversible error for the court to charge the jury that "the party selling must use an ordinary degree of caution and diligence in ascertaining for what purpose they (the medicines) are wanted." Davis vs. State, Supreme Court of Georgia, 18 S. E. Rep. 998.

The Michigan State Agricultural College has been looking into the question whether there is danger in the use of poisonous sprays upon fruits. The experiments cover two years, and the results show that appreciable quantities of the poisonous salts remain in the ripened fruit, though the amount is small. Most of the poison remains on the outside, but a part finds its way into the substance, and the report recommends that during the period of ripening no fruit should be sprayed with solution of mineral salts. It farther says that the amount of poison used is generally largely in excess of what is necessary, one-third the customary quantity would probably give as good results.

[Written for the Era.]

EXPANSION AND SPECIFIC GRAVITY OF WATER REFERRED TO 15° C. AS NORMAL TEMPERATURE.

By Dr. Chas. O. Curtman, St. Louis.

Water is in its state of greatest density at 4° C., and hence this degree has been generally assumed by physicians as the norm for comparison of volume with other liquids of the same temperature, or, in other words, for determining the specific gravity of liquids with water as a unit. The measuring of volumes occupied by liquids, and the graduation of vessels for this purpose has also been referred to this temperature as a norm. But, as every one knows, it is by no means agreeable to do such work at 4° C., and hence the practice has long since departed from the conditions prescribed on theoretical grounds, and a somewhat higher temperature has been chosen as norm for the graduation of volumetric and areometric instruments. After various oscillations in the temperature to be used, that of 15° C. has, by general consent, gained the preponderance and in conformity with this usage, the U. S. Pharmacopoeia has made this temperature the basis for its volumetric assays and for the tables of specific gravity. From this alcohol alone makes an exception, 15.555° C. (60° F.) being retained on account of its being adopted for that article by the United States custom house. For the purpose of facilitating calculations for reducing volume and specific gravity to a normal temperature of 15° C., the following little table has been prepared. It is absolutely correct for pure water only, but may serve very well for all kinds of aqueous solutions, volumetric reagents, urine, etc., as their expansion and contraction, and therefore their specific gravity, are almost absolutely proportional to those of pure water at the same temperatures. Hence corrections may be easily made in measurement of such liquids at other temper-

atures than that at which the instruments have been graduated.

Thus, the volume of 1,000 cubic centimeters of water measured at 15° C. expands at 25° C. to 1,002.045 cubic centigrams, and therefore a volume measured at 25° C. must be divided by 1.002045 to give the correct reading for 15° C.

The specific gravity of 1.020 indicated by the urinometer at 25° C. must be divided by 0.978558, as given in the table, to obtain the specific gravity of the urine at 15° C., which results in 1.022. To obtain the specific gravity or volume which aqueous liquids measured at 15° C. would assume at other temperatures, the amount must be multiplied by the figures of the table. To reduce the specific gravity or volume of such liquids, measured at different temperatures, to that at 15° C., the amount must be divided by the figures of the table.

Volume and specific gravity of water at different temperatures compared with water at 15° C. equals 1.000000.

°C.	Volume.	Specific Gravity.
10.....	0.999142	1.000587
11.....	0.999504	1.000496
12.....	0.999811	1.000389
13.....	0.999729	1.000270
14.....	0.999670	1.000139
15.....	1.000000	1.000000
16.....	1.000158	0.999811
17.....	1.000319	0.999580
18.....	1.000507	0.999329
19.....	1.000700	0.998999
20.....	1.000902	0.998608
21.....	1.001115	0.998180
22.....	1.001335	0.998664
23.....	1.001563	0.998439
24.....	1.001798	0.998205
25.....	1.002045	0.997958
26.....	1.002301	0.997704
27.....	1.002566	0.997441
28.....	1.002839	0.997169
29.....	1.003118	0.996888
30.....	1.003409	0.996602

detailed particulars of the work of the various sections of the coming Congress of Applied Chemistry, at Brussels, are:—

In the section of agricultural chemistry the chief points to be carefully studied and discussed are: 1. The estimation of nitrogen, both in the form of ammonia and nitric acid, in manures, etc. 2. The estimation of phosphoric acid in soils, with especial reference to the proportions of soluble and insoluble phosphates and the use of ammonia citrate as a solvent, both in manures (superphosphates) and soils. 3. The estimation of iron and alumina in phosphates. 4. The analysis of commercial fertilizers.

In the section of public health, the purity of butter, the melting points of fatty bodies, the analysis of pepper and the bacteriological examination of water are the chief points to which attention is to be paid. The importance of determining a standard method for taking melting points is very great.

In the section of biological chemistry the chief work will be the publication of a review of applied biological chemistry in several languages. In addition to this, the cultivation of pure yeasts for fermentations, and the relations of oxygenations to this, vinegar ferments, grain and molasses are to be dealt with in detail. The total result of the congress should be of some importance, since it has the desirable object of the unification of analytical processes in view.

[Written for the Era.]

THE COAL-TAR COLORS IN THEIR SANITARY RELATIONS.

By Henry Leffmann, M. D., Professor of Chemistry and Toxicology in the Woman's Medical College of Pennsylvania.

Nothing illustrates more vividly the value of painstaking investigation than the history of the utilization of coal-tar. Originally a refuse product of most objectionable character, the disposal of which was one of the most difficult tasks in gas engineering, it has become of the greatest importance, and even if the operation of distilling coal for gas should cease, the manufacture of tar and other accessory products of gasmaking would continue. Vast industries, involving millions of capital and employing an army of skilled and unskilled workmen, have been founded on the use of the derivatives of this product. The chemistry of coal-tar demonstrates the great value of abstract reasoning. A large part of the substantial progress in this field has been due to close attention to the theories of structure and to ingenious suggestions as to molecular arrangement.

While all civilized nations have contributed to the study of this topic, it is to the Germans that we owe its largest individual contributors, and the patient inquiry needed for the work has, of course, been best supplied by them. The result is, to use the language of Prof. Eugene Sell, that "the coal-tar color industry of Germany has conquered the world, and will be able to maintain its pre-eminent position."

Most persons know little else about coal-tar except that colors are made from it, and the general information is quite vague, a not uncommon opinion being that the colors are extracted from the crude product—that is, pre-exist in it. In reality, a long line of transformations is needed to secure the products now commercially known.

In discussing the sanitary relations of these bodies, it will not be amiss to explain briefly some theoretical and practical points. The tarry products of the destructive distillation of coal are complex, being intimate mixtures of many compounds, principally hydrocarbons. Different coals give tars of different composition. In the manufacture of colors and other derivatives, only approximate separations of the hydrocarbons are made, and some variations in the composition of the finished material will result; hence, products nominally the same, but from different factories, will not be exactly identical. This has brought about a system of nomenclature, especially with colors, the initials of the manufacturers being used. This gives precision in the indication of a color, a matter of importance not only in trade but in the employment of these articles in tests and staining fluids.

The most important ingredient of coal-tar is benzene C_6H_6 . This must not be confounded with a coal-oil product, benzoin or benzine, which is a mixture of several hydrocarbons of a type entirely different from benzene. Benzene may be obtained perfectly pure, and is then a colorless, limpid, volatile liquid, with a characteristic "coal-gas" odor. It burns readily, giving much smoke. It solidifies by moderate cold. The pure article is not used for making colors; indeed, for many such operations it is inapplicable and the crude forms are needed. These are usually brownish liquids and contain moderate

amounts of hydrocarbons, similar in structure to benzene and "homologous" with it, that is, differing in composition by some multiple of the ratio CH_2 . Toluene C_7H_8 , (i. e. $C_6H_5 + CH_3$), and xylene C_8H_{10} ($C_6H_4 + 2CH_3$) are usually present. It is usual to call crude benzene "benzol," and while such a name is objectionable in view of the now generally accepted agreement among chemists to regard the termination "ol" as indicative of alcoholic structure, yet it is not likely that trade interests will abandon the use of the term. In this connection, I must express my regret that, in the preface to the last edition of the Pharmacopœia, encouragement has been given to the use of benzol as a name for benzene itself.

The crude benzene is converted by the action of nitric acid into nitro-derivatives, and these by further action are converted into bodies containing the group NH_2 , and called amido-derivatives. Benzene itself, by these transformations, yields aniline (amido-benzene) $C_6H_5NH_2$; the associated hydrocarbons yield analogous bodies. From the mixtures of these amido-compounds many brilliant colors may be obtained, and although the progress of invention and discovery has brought about the use of colors not derived from aniline or its immediate congeners, yet the coal-tar dyes are still collectively known in general literature as "anilin colors."

Theory would lead us to expect that all such derivatives would be poisonous. Both nitro-benzene and aniline are highly poisonous, but fortunately most of their commercial derivatives are without marked toxic action. Much misunderstanding has long existed on this point. In some cases the poisonous character has been gratuitously assumed, but in others an injurious action has actually been noted and afterwards found to be due to impurities. This latter was the case with aniline red (magenta or fuchsin). There is no longer any reason to regard this color as poisonous. It was, however, at first, and probably even now, made by the use of arsenic acid, and an appreciable amount of some arsenical body remained in it, conferring high toxic powers. When freed from this impurity, or prepared by non-arsenical methods, it is harmless. In one class of colors supposed to be the cause of skin irritation with those working in them, it was found that the strong bleaching agents used for cleansing the skin were the cause of the trouble. One point in favor of the aniline colors is that they are mostly so high in coloring power that they are not likely to be swallowed unawares, and need only be used in food and drink in very small amounts. Thus, I am informed by a manufacturing confectioner, who exercises great care in the selection of the colors he uses, that a yellow color, "auramin," has such power that one ounce will color two thousand pounds of candy. Obviously, a body would have to be highly toxic to be felt in such dilution. Moreover, the pure coal-tar colors are not likely to be cumulative, that is, repeated small doses are not likely to give rise to chronic poisoning, since, being complex organic molecules, they are easily broken up in the system and excreted.

Dangerous effects of the artificial colors made arise in three ways:

1. Actual toxic action of the color.
2. Presence of poisonous impurities, either (a) from use of such substances during manufacture, or (b) from liability to adulteration.

3. Employment of the color to conceal substitution or adulteration of food products.

As to the first class, I have already said that few of these colors are decidedly toxic, even when pure. Some of the yellows are dangerous, especially those containing the group NO_2 (nitro-compounds) among which is to be noted Martius' yellow-di-nitro-alpha-naphthol. This is a cheap and useful yellow, and there is a constant liability to employ it. Picric acid and anilin orange (di-nitro-cresol) are also poisonous. The latter is also known as "safron substitute," and an interesting case occurred some years ago in Bremerhaven, in which a woman desiring to produce abortion obtained and swallowed safron-substitute instead of safron (*Crocus sativus*), not knowing the mistake. She died from the dose. Weyl, to whom we owe the most exact and extended information on these questions, gives the following as poisonous colors, in addition to those noted above: Methylene blue, safranin, orange II., and metonil yellow. Fast brown G. and Bismarck brown have slight irritant action, but can scarcely be regarded as poisonous. Many colors have not yet been tried, still the proportion of dangerous ones is certainly small.

Concerning the liability of coal-tar colors to contain poisonous impurities, it may be said that there is some cause for anxiety. Arsenical compounds are, of course, the most dangerous of all, and aniline red, which is still a popular color, is often made by the use of arsenic acid. Some coal-tar colors are found in the market in combination with metallic chlorides, such as zinc chlorid. Others again have impurities derived apparently from the vessels in which they are made; thus, I have rarely failed to find slight amounts of copper in Bismarck brown, also zinc in small quantities in other colors. It is advisable, therefore, that all colors intended to be used in food (and such use in candies at least is legitimate) should be tested for metallic impurities. An unfortunate circumstance in regard to the coal-tar products is that the names, being mostly fanciful, are no guide to composition, nor even identity. A change may be made in the nature of the color, or a substitution of a cheaper color occur, and if no visible change is produced the substitute may be constantly sold for the original. In this way the low-priced Martius' yellow, which is poisonous, is said to be substituted for naphthol yellow S., which is non-poisonous.

The presence of arsenic, antimony or mercury in a color may be easily ascertained by Reinsch's test; the presence of copper, lead, zinc or tin, by burning off the color in a porcelain crucible and testing the results according to the usual system of qualitative analysis.

Much attention has been given to supposed irritant effects of coal-tar colors on the skin. I have seen very little evidence of this. Some suspicion attaches to safranin, but nothing absolutely demonstrative. Arsenic as an impurity has been charged with causing trouble in dyed underclothing, but theory would indicate, and experiments I made some years ago seemed to confirm this, that an arsenical compound in the dye stuff remains in the vat-liquor and does not pass into the yarn. I have long been of the opinion that much of the skin irritation ascribed to dye-stuffs is due to the use of irritating soaps.

The third class of injurious effects of the coal-tar colors, namely, the fact that they enable impure, weak or substitute foods to be imposed upon the public, is, of course, an indirect influence, but it is not unworthy of attention. A yellow color, harmless in itself, may be used to avoid the use of eggs, or, by its means, a watered milk may be made to appear rich. A plain fat may be given the appearance of butter; a mixture of corn starch and a little anilin red may make an apparently rich pudding. The coloring of wines and similar beverages is well known. Raspberry syrup quite innocent of the luacious fruit may be easily prepared by the use of the same color. But little legislation is yet in force in the United States on this phase of adulteration. It will be well to state that as far as butter and milk colors are concerned, and they are largely used, annatto, which is a natural vegetable color, is mostly employed.

The fact that colors nominally the same are often not exactly identical by reason of the slight differences in the crude products from which they are prepared, has been noted above. Moreover, many colors are obtained by secret or patented processes, and hence the exclusive products of certain houses. Initials denoting the place of manufacture are often attached to such colors. Among those of common occurrence are:

M., L. & B.—Melster, Luclus & Bruning.
B., S. & S.—Brook, Simpson & Spiller.
B., A. S. F.—Badische Anilin & Soda Fabrik.

Initials are also used to indicate differences in shade and modification in composition. There seems to be no great unanimity in method in this respect. The hostile feelings existing between the French and Germans have tended to prevent a common system. Different shades of the same color are indicated by the initial of the tint by which the color is influenced. A red color, for instance, may be produced with varying shades of blue, and these will be indicated by B., BB., 3B., etc., according to the degree. Similarly, "Eosin J." means a yellow shade of eosin (Fr. jaune, yellow). Tropaeolin OOO indicates a strongly orange shade of the color.

Chemical change may also be indicated by letters. Naphthol yellow, by treatment with sulfuric acid, becomes changed by taking the molecule HSO_3 , and this is technically called "sulfonation." The modified color so produced is called naphthol yellow S. It is worthy of note that sulfonation seems to diminish the poisonous action of a color, although rendering it more soluble.

It has been noted that, although comprehensively called "anilin" colors, many coal-tar dyes are not derived from this body, but from other ingredients of the tar. Among these are prominently naphthalene and anthracene, which yield many very valuable derivatives. The same principles, however, as to nomenclature, effects and uses apply to these as to the true anilins. The introduction of new colors goes on with great rapidity. Dealers may give no notice of such substitution, and thus harm may be done, for it is very rare, if ever, that a manufacturer ascertains the effects of his product on the animal system.

[Written for the Era.]

SANITARY CHEMISTRY.

By Victor C. Vaughan, Ph. D., M. D., Dean of Medical Department, University of Michigan.

Much has been said in recent years of the work which should be done in sanitary science by the chemist. Many municipal and a few State Boards of Health regularly employ chemists. It may not be out of place to make a few statements concerning the need of such employment and the work which these chemists should be called upon to do.

Boards of Health are created and supported for the purpose of preventing sickness and death. We now know that about eighty per cent of the deaths occurring annually are from preventable causes. Pains to man's health and happiness are all about us. They float in the water we drink, they feed on the food we eat, and they contaminate the air which we breathe. It is the duty of boards of health to detect the presence of these dangers, to remove them when possible, and to warn the public when desirable. Much can be done in all of these directions by a board supplied with scientific experts whose entire time should be devoted to the work.

In the first place, the sanitary chemist must be more than a chemist, he must be a bacteriologist as well. Some one may ask why the work of the chemist and that of the bacteriologist should not be divided and an expert in each branch employed. To this it may be answered, divide the work as much as you please, employ as many persons as may be needed. Too little money is given to our boards of health. The number of experts at their command is too small. The safety of the people should always be the supreme law and is worthy of first consideration. We have no foreign foe who could possibly inflict upon us the injury, suffering and death which typhoid fever will cause during the next twelve months. We need an army of scientific experts to protect the people from disease and death. However, the man who undertakes to do the chemical work which should be carried out daily by every board of health in our larger cities will fail unless he be a bacteriologist as well as a chemist. Pathogenic germs are only chemical poisons which are capable of indefinite growth and multiplication and the most deadly chemical poisons are the products of bacterial activity. The man who studies these poisons successfully must know them in both conditions, their living and their dead forms. With this hasty introduction, I will proceed to mention some of the lines of work which the chemist in the employ of a municipal board of health should, in my opinion, carry out.

About fifty thousand persons die annually in the United States from typhoid fever and more than ten times this number are sick with this disease. The greater number of these cases are due to the drinking of infected water. For these reasons the public water supply of a city should be most zealously guarded. The reward which comes from this care is greater than that afforded by riches. It consists of health and happiness. The chemist should make weekly and at certain seasons of the year daily examinations of the drinking water. The typhoid germ can be quite easily detected and it should be recognized at its first appear-

ance in the water. The chemist should not wait until there are cases of typhoid fever before he looks for the germs in the water supply, but he should detect the germs before there is an epidemic of the disease, or, better still, he should guard the water that the admission of such germs becomes impossible. In case of infection of the water supply, the board of health should immediately warn and advise the public. Suppose that a city takes its drinking water from a river which flows through a populous country. Cities and villages, manufactories and farm houses are constantly pouring their waste into the river, either directly or indirectly through its tributaries. The composition of the water supplied to this city varies from day to day and the chemist should watch these variations as the mariner watches wind and cloud. The water may be perfectly safe to-day, and to-night a rainfall may wash the typhoid-laden accumulations from the privy-vault of a farmer into the river, and to-morrow the water may contain a most virulent poison. I think, therefore, that I cannot be accused of exaggeration when I say that the public water supply of every city should be examined at least once a week. In certain instances these examinations should be made even more frequently. Since I desire to make this paper as practical as possible, I will mention some of the conditions which, in my opinion, demand very frequent examination of the water supply. In doing this I will again suppose the city is taking its water supply from a river flowing through a populous country above the city. In such a case the following are, in my opinion, conditions which should justify very frequent examinations:

First—The known existence of typhoid fever or any other water-borne disease in any of the districts drained by this river or its tributaries above the city. Had the authorities at Grand Forks, North Dakota, had their water supply examined daily as soon as they learned that typhoid fever was prevalent at places located above them on the river from which they were taking their water supply, much sickness might have been prevented and many lives might have been saved, and the city would not have had the sad experience it has been having for the past few months. This is equally true of many other places which could be mentioned.

Second—The known contamination of the river with any sewage, even when such sewage is not known to contain any specific infection, within a distance of forty miles of the intake of the water supply. In some cities the authorities have shown their deplorable, and I might add criminal, ignorance of sanitation by contaminating their water supply with their own sewage. They have done worse than the fabled bird which befouled its own nest; they have polluted their own drinking cup.

Third—The presence of an unusual number of people on the river or body of water from which the water supply is taken. There are many cases of walking typhoid fever and any one of these may contaminate the water supply. Moreover, it is altogether probable that many people become immune to this disease, and the germ may exist in the excretions of these persons, who are not only free from the disease, but in perfect health.

In the second place, the sanitary chemist must give much time, attention and skill to the milk supply. It cannot be denied that milk and water are the two deadly drinks. More than one-fourth of the children born to the civilized world die before they reach five years of age. A large per cent of the diseases with which these children are afflicted come from the milk which they drink. Many saprophytic germs produce chemical poisons by their growth in milk. These poisons induce the summer diarrhoeas which cause the fearful infantile mortality in our large cities during the hot months of summer. The bacteriologist cannot distinguish these germs from those which are harmless. The chemist must be able to detect the chemical poisons. At the same time he must be enough of a bacteriologist to make and to carry out rules for the control of the milk supply. Some of the poisons which are formed in milk by these saprophytic germs are basic in character and belong to that class of putrefactive products designated as ptomaines, while others are albuminous bodies and resemble in their deadly action the venom of poisonous reptiles. It is not adulterated milk or diluted milk that causes this high death-rate—it is polluted milk. Besides these saprophytic germs, certain specific micro-organisms may be present in milk. Among these we may mention the germs of tuberculosis, diphtheria, scarlet fever and typhoid fever. The typhoid germs are most probably introduced into the milk in the majority of instances with water which is used in diluting the milk. The tubercle germs may come from using the milk of tuberculous animals or from the infection from tuberculous milkers or other persons engaged in the care or transportation of milk. The diphtheria and scarlet fever germs often find their way into milk from persons who are recovering from these diseases. Epidemics of all of these specific diseases may frequently be traced to the milkman. By careful attention to the milk supply of a large city, many hundreds of lives may be saved annually.

Attention to poisonous milk is of more importance than estimations of the amount of fat or other constituents. However, the last mentioned work is not without its value. Many children are wholly dependent upon milk for their daily food. If this milk is diluted, the child may literally starve to death. This is the reason why municipal authorities frequently forbid positively the sale of diluted or adulterated milk. This prohibition is certainly a just one. The parents should not be allowed, even if they desire, to feed their children upon a food which is not sufficiently nutritious.

Probably next in importance to the water and milk supply, the chemist should give his attention to the public markets, and especially to the meat supply. Meat may be the bearer of infection and the cause of disease in the following cases: First, when the animal from which it has been derived is diseased. It is a well-known fact that anthrax, tuberculosis and other specific diseases may be transmitted to man by the eating of the flesh of diseased animals. Second, the meat may become infected by the person handling it. Tuberculous persons should not be allowed as employees in meat markets. The dust of rooms occupied by tuberculous persons becomes infected with the

specific poison and this may settle on pieces of meat which are sold and consumed, and may cause disease. Third, even the flesh of healthy animals may undergo putrefactive changes in which a whole class of chemical poisons is formed. Among these poisons are some which are most deadly. This explains why sickness so frequently follows the consumption of canned meats. In the process of canning, the contents of the can are not completely sterilized and the meat undergoes a slow putrefaction by the formation of these highly virulent poisons. The chemist should be able to isolate these poisons and to demonstrate their action upon small animals.

In addition to his work on food and drink, the sanitary chemist must be able to detect impurities in the atmosphere and to recognize the presence of sewer gas and other contaminations. Certainly the amount of work which the sanitary chemist in the employ of a municipal board of health may be called upon to do is unlimited. Unfortunately, the public generally does not at present appreciate the great saving of life which might be accomplished by these means. However, the time will come when we will spend quite as much money, time and energy in combating disease as we do in protecting our country against foreign foes.

[Written for the Era.]

HOW TO STUDY TO SUCCESSFULLY PASS THE STATE BOARD EXAMINATION.

By Harry B. Mason, Ph. G.

It is the earnest desire of every apprentice in the store who is unable to go through college, to so conduct his studies that he may successfully pass the State Board examination and become a "registered" pharmacist.

The state laws now require an apprenticeship of four years before the student can be allowed an examination. If these four years of apprenticeship, preceded by a substantial preliminary education, are used to his best advantage, with the hope of reward spurring him on, and the desire to become registered at the end of his apprenticeship, there is no reason why the student should not successfully and ably pass any State Board examination. But he must remember that only hard and diligent work will carry him through, for the examinations are increasing in severity each year, and only the fittest and those most capable of pursuing their profession ably are recognized.

To that desired end I suggest to you a course of study which shall consume but two years of your apprenticeship, and which, if thoroughly understood, will enable you to pass any State Board examination. You should, of course, follow this by further study and research. There are three main branches in the study of pharmacy, and though these are again divided into numerous subdivisions, some of which belong strictly to a college course and not actually necessary for study preparatory to State Board requirements, I will treat them together under each head, suggesting the text books needed for each and the time necessary for their study.

PHARMACY—First year: Remington's Pharmacy to Part III. and including pages 1081 to 1153.

Second year: Heebner's Manual of Pharmacy, beginning at Part II. and completing the book, using meanwhile Remington for general and explan-

atory reading, and the Pharmacopoeia for reference; reserving four weeks at the end for Hartt's Volumetric Analysis.

CHEMISTRY—First year: Steele's Physics entire, first fifteen weeks; Fowne's Chemistry, pages 131 to 274, remaining thirty-five weeks.

Second year: Clarke's Chemistry, beginning with the metals on page 172, and completing the book, using Fowne for general and explanatory reading.

BOTANY, MATERIA MEDICA AND PHARMACOGNOSY—First year: Completion of Gray's Lessons in Botany.

Second year: Maisch's Organic Materia Medica, using the Dispensatory continually as a reading reference.

FIRST YEAR'S STUDY—Take Remington's Pharmacy and divide its 436 pages preceding Part III. and its 72 pages in the back between pages 1081 and 1153, making 508 pages in all, into 50 divisions, each division having a like number of pages, and mark them for future reference. Use each division thus marked for one week's study and consider as one lesson or lecture, following your studies with practical experiments in specific gravity and pharmaceutical manipulations as far as possible.

In chemistry begin with Steele's Physics and go through the book, devoting fifteen weeks to its study and dividing it into fifteen divisions. An understanding of the laws of natural philosophy is necessary for the proper study and comprehension of the science of chemistry, as a preliminary to it. Follow this fifteen weeks' study of physics, by devoting the remaining thirty-five weeks of the year to Fowne's Chemistry, using only pages 131 to 274, giving special attention at the end of the year to "Atomic Weights," "The Atomic Theory" and "Chemical Affinity," and to the study and writing of reactions, for upon this depends much of your success in the study of chemistry.

As for your first year's study in botany, I have only to say that you should go through Gray's Lessons, which you will find easy in comparison with chemistry or even pharmacy, dividing each week as with the other branches.

SECOND YEAR'S STUDY—You have but little more than learned to study during your first year, and in your second will be compelled to use your memory to good advantage.

For your study of pharmacy, begin with Part II. of Heebner's Manual, and divide the remainder into forty-five divisions, reserving the remaining five for Hartt's Volumetric Analysis. In this connection, as things are too condensed or difficult, use your Remington to help you out. It is a good way to read Remington first, asking yourself questions from Heebner, and study Heebner afterward. Use the Pharmacopoeia for tests, etc., which apply during your study, for they will further your understanding and knowledge of the subjects under consideration, and enable you to remember them much better. In your study of Hartt's Volumetric Analysis I would advise your making up some normal solutions and applying the tests personally, for you will the better understand it.

Your second year's chemistry will prove hard and difficult to you, but you will master it by proper study. Begin with a study of the metals in Clarke's Chemistry (page 172) and finish with the study of organic chemistry, dividing the 177 pages thus covered into fifty divisions. In con-

nection with your study of the metals, find four or five tests for each in Heebner or Remington, and apply them, writing the reactions to your satisfaction; this is essential, for you will be called upon to give tests and write reactions. If the mysteries of organic chemistry appear difficult of comprehension, refer to Fowne for fuller explanation and detail. In fact, it is better to study both, taking your lessons from Clarke.

As for second year botany and materia medica you will find that a good memory is an essential, and that a thorough training of it is necessary. Use Malsch as a text book, dividing its pages into fifty divisions. Reference to the Dispensatory will often be necessary, as it is much more complete. You will need to learn the habitat, origin, main constituent, medicinal properties and dose of each drug under consideration, and from practical experience with them, the description of those that you have or can secure, which constitute pharmacognosy. The purchasing of a cabinet of crude drugs is advisable, though not necessary. You should give considerable attention to the recognition of crude drugs and their adulterations, so as to be able to distinguish them when adulterated, but do not try to remember "book descriptions," for you are only wasting your time. Neither learn any natural orders, for it is unnecessary.

You have thus three lessons each week and can give up two days to the study of each, interspersing with practical experiments as you go along. Study as you would if you were at school and had regular recitations and monthly examinations to pass. Don't read the matter over, but study it, memorize it and test your knowledge by asking yourself questions, which you will find in Clarke or Remington, and which, if not given, you can form for yourself. You have an average of only three to six pages of matter to a lesson and two days in which to study it. There is ample time, if properly used, to study thoroughly every point, and you will find that if you are thorough, you will remember them all easily when reviewed. After learning the present lesson review the last one in each case, so that each week you will be reviewing one week back. Use every spare minute you have to advantage, as though you were preparing for regular quizzes. You would if you were at college and you must if you expect to be successful. By asking yourself questions you can soon judge whether you have learned your lesson or not, and if not, do not stop until you have. Every three months give up a week to general reviewing of all the main points gone over, omitting the general weekly lessons for the time being, and see that you are well posted on ground already covered. It is better to go slow and comprehend as you go along. A thing once learned has but to be reviewed to bring it back forcibly to the mind.

At the end of the first year, give up two or even three weeks to a thorough review, and more if necessary, until you feel that you know every point of importance you have studied.

Pursue the same diligence and self-quizzing throughout the second year, have the same quarterly reviews, and at the end thoroughly review both years.

If you are then able to tell the substance of what you have gone over, you need fear no State Board examination. While you have not gone over all you

would go through in a regularly prescribed college course in these subjects, to say nothing of branches you have not touched, you have learned that which applies directly or indirectly to a State Board examination, and more which will be of much practical interest to you. It is said, with much more truth than fiction, that one cannot hope to pass the State Board at this day unless he go through college. But if you have diligently pursued the course herein prescribed, you have taken that from a college course which will help you through a State Board examination. But you should widen your scope and pursue your studies farther. There are many things which you can take up with advantage, even if you are "registered," among which is a study of "Urinary Analyses," which truly belongs to the pharmacist, milk analysis and analysis in general. Do not think your study is completed because you are registered, but continue your research indefatigably for the benefit of mankind, your own reputation, and the furtherance of your profession.

[Written for the Era.]

PHARMACOLOGY—ITS SCOPE AND THE METHODS OF TEACHING IT.

By J. O. Schlotterbeck, Ph. C., B. S., Instructor in Pharmacology and in Botany, in charge of Materia Medica, University of Michigan, School of Pharmacy.

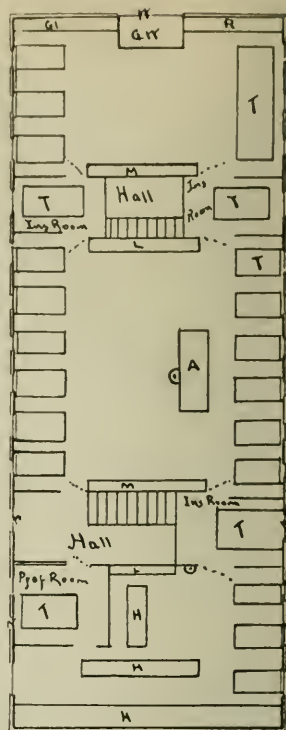
(Continued from Page 346, April 15.)
III.

As was stated in the first part of this article, the microscopical study of plants and their different organs must form a part of pharmacology. The use of the microscope in pharmacy has been so fully and ably discussed in the columns of drug journals that nothing further will be said in this paper upon the subject. Merely an outline of the course of microscopy and the method of teaching it in this school will be attempted.

The botanical and microscopical laboratories, consisting of two distinct working rooms for students, four instructors' rooms, and an herbarium room, are located on the fourth floor of the main building and have a floor area of over 4,000 square feet. Twelve large windows—six on either side—furnish light for the main room, which is the laboratory of microscopy proper. At each window is a large table, specially designed for the purpose, which comfortably accommodates four students working at the same time. In the two rooms there are accommodations for fifty students. Of course there are never that many at work at any one time, since one instructor cannot do justice to more than twenty students. Accordingly all classes are divided into sections of fifteen or twenty.

The laboratory is equipped with thirty-five Leltz compound microscopes, six Zeltz oil-immersion microscopes, twenty dissecting microscopes, polarizers, sliding and rocking microtomes, apparatus for embedding, and numerous other appliances for use in elementary plant physiology and advanced work in pharmaceutical microscopy. All that portion of the general library which applies especially to botany is placed in this laboratory for the convenience of the students. An herbarium of over eighty thousand specimens is accessible to the students and is also conveniently located upon the same floor.

The floor plan of the two laboratories is given below:



A.—Aquaria.
T.—Work-table at each window.
W.—Window.
G.—Garden window.
Cl.—Classroom.
R.—Reagent case.
M.—Microscope case.
L.—Library.
H.—Herbarium.
Ins. R.—Instructor's room.
Prof. R.—Professor's room.

Perhaps the programme of work is about the same as in most other schools which give a course in microscopy, and the ground covered during the semester may be no greater or indeed not so great as in these schools. That is, more drugs and sections of plant tissues may be examined in other schools, and especially if ready-made mounts are furnished for study, but here, as was stated before, students are taught how to use the microscope intelligently and to get the most out of it. As a result not as many subjects are studied, but the student becomes thoroughly acquainted with the method of microscopy and is competent to pursue his work to any extent he desires.

The synopsis of work is essentially like that given in the first few pages of Power's translation of Flueckiger's Principles of Pharmacognosy. After having finished the study of starches, however, practical work in the detection of adulterations by starch in the powdered condiments and drugs of the open market is given. Mustard, elm, pepper, cinna-



WORKING TABLE.

mon, hydrastis, rhubarb, insect powder and ginger are among those studied. Having completed the study of the cell-wall in its various forms and modifications and the cell contents in their natural condition, and also under the influence of micro-chemical reagents, some of the typical drugs of the pharmacopoeia are investigated. Some merely in cross-section as a means of identification; others are accorded a minute anatomical or rather histological study.

At the beginning of a new subject each student is supplied with a printed synopsis of directions for study. Each step is followed carefully, descriptions made and copied into note books and sketches made whenever needed to illustrate the descriptions. Great stress is placed upon the importance of the two things. The descriptions are written as the work proceeds, and are to be made so clear and plain that any one not having seen the material under the microscope could form a mental picture of the object from them. All note books are of the same size and are provided with a pocket for the drawings, which are made upon the finest drawing paper cut to uniform size. Twice each semester these books are called in and carefully read over by the instructor, who makes the necessary corrections and comments on the character of the work. The notes will at once show whether the student has obtained the correct conception of the structure of the material he has studied. While the description is perhaps the best indication of the student's ideas, the drawings are no small aid in determining his understanding of the subject.

To be sure it cannot be expected that every one will furnish good drawings, and it is not our intention to make an artist of him. For example, one may not be able to make a good representation of a starch granule like the potato, but if he has noticed the alternate opaque and translucent bands, his sketch will show it, be it ever so inartistic. The advantage to be gained by drawing everything as near like the original as possible, more than warrants the time spent upon it. "Draw everything just exactly as you

see it without anything effective or imaginary," are the directions constantly given. The necessity of insisting upon this may be easily demonstrated by asking a beginner to make a sketch of, say a bean starch grain. The chances are he will draw an oval or bean-shaped outline, without any surface markings whatever. Now tell him to draw a bean granule exactly as he sees it, using the fine adjustment continually to bring into the field of vision the successive portions of the grain. It will have required per-

haps five or ten times as much time as the former operation, but we shall see a hilum and numerous stratifications that run nearly parallel to the circumference.

Until the student realizes the necessity of doing careful work at once, it is no unusual occurrence to request drawings to be made over two or three or even a dozen times. It does not take him long, however, to learn that it saves time to do his very best at the first attempt, consequently there is no relaxation in the earnestness with which the work is pursued.

There are some colleges of pharmacy, even in Germany, where large charts illustrating the very structures the student should work out himself, are hung right before his eyes. Naturally, whatever conception he gets is obtained from those charts rather than from the material under the objective.

Now that kind of work is contrary to sound pedagogical principles and tends to produce copyers or parrot workers rather than fostering independent and original research. He is no more of a scientific man than he who can copy a picture is an artist. Let the student investigate for himself so that when he goes out into the world, he will not be as helpless as a cripple.

An idea of the directions given as a guide to the student's work may be gained from the following outline for the study of aleurone.

ALEURONE.

Material—The seed of *Ricinus communis*.

References—Flueckiger: Principles of Pharmacognosy.
—Strassburger and Hillhouse: Practical Botany.
—Bessey's Botany.
—Sachs' Botany.



CROSS SECTION OF SALIX ALBA.



MICROSCOPICAL LABORATORY.

Define these terms—testa, caruncle, raphe, hilum, endosperm.

I. (a.) Remove the hard shell-like testa of the seed of *Ricinus communis* (castor oil seed) with a pocket knife.

(b.) Make a number of very thin sections with the razor, of the soft tissue of the endosperm and mount them in a drop of strong glycerine. Examine them all with the low power objective and choose the thinnest section.

(c.) Examine carefully for cells, and their contents the aleurone granules. Describe the appearance of the cell-wall; the number of granules in a single cell; their shape, size, position, and the surface markings upon them, if any. Sketch a half dozen or more granules of different sizes and shapes. Then sketch a single cell and its contents.

II. Again cut thin sections and stain with haematoxylin. What effect does it have upon the granule? Find a globoid at one end of the granule. Is it colored by haematoxylin? Describe.

III. Mount several sections in dilute glycerine and examine at once. What change takes place in the appearance of the granule? Are there any structural changes noticed? Describe fully. Sketch a single cell and its contents, taking particular care to accurately represent the crystalloids in their various forms.

IV. Apply dilute iodine solution to a number of thin sections and study the changes produced. Describe the effects produced by the stain and sketch a cell and its contents, showing structural changes produced.

V. Review each step thoroughly and be sure you have a thorough understanding of each before proceeding with the step following.

After having completed the work required during the semester, a special crude drug is assigned to each student to

work out histologically without any help from the instructor. It is strictly an original piece of investigation and decides to a great extent his ability in that line of work. Having completed the microscopical study a complete monograph, including the history, chemistry, pharmacy and microscopy of the drug is presented on thesis paper. This thesis is read and defended before the class in microscopy at the close of the work.

Advanced courses are offered in food and drug adulterations, especially intended to prepare students for work connected with the position of food inspector.

The laboratory is equipped with complete apparatus for work in photo-micrography, which is the most accurate, rapid and satisfactory method of reproducing microscopic mounts. This branch is under the direct supervision of Prof. A. E. Stevens, who has kindly furnished the photograph of a section of *Salix alba* here shown.

(To be continued.)

CALCIUM CARBIDE is an interesting product discovered by Moissan in his work with high temperatures. It is a crystallized compound of calcium and carbon of the formula C_2Ca , and is produced at a temperature in the neighborhood of 3,500 deg. C. He obtains it in reddish-brown shining opaque crystals, which possess very interesting chemical characteristics. His mode of preparing the product and its various peculiarities are found in a contribution to *Compt. Rend.*

A NEW PTOMAINÉ has been discovered in an over ripe cheese made from sheep's milk. Leplierre (*Compt. Rend., Pharm. Jour.*) obtained it in crystalline form, and describes it as inodorous, bitter, somewhat acid, slightly soluble in water and more so in alcohol. Its salts are precipitated by several of the alkaloidal reagents, but not by tannin.

CATHARTIC ACID.—In *Pharm. Ztsch.* (*Pharm. Jour.*) Jenz describes the preparation of this acid by evaporating an infusion of senna in vacuum, mixing the resulting extract with an equal volume of alcohol, stirring well and leaving the mixture to settle for twelve hours. The liquid is then decanted and the deposit shaken again with alcohol and finally filtered. The mixed and filtered liquids are then precipitated with lead acetate, the precipitate thoroughly washed, partially dried, mixed with alcohol and decomposed with hydrogen sulphide. The excess of the gas is driven off by passing a stream of carbonic acid or air through the liquid, then heating the whole in a return condenser, the lead sulphide then being filtered out and washed with alcohol. The clear liquid from this operation is mixed with ether so long as a pale, yellow deposit is produced, which is allowed to settle. The ether is poured off, the deposit washed with ether or strong alcohol, dissolved in a very small quantity of thirty per cent alcohol, and evaporated at a temperature not exceeding 50 deg. C. The cathartic acid so obtained has the characteristics of a glucoside and amounts to from 0.6 to .75 per cent. It is soluble in hot water and alcohol, is expressed by the formula $C_{20}H_{12}NO_{12}$, and is given in 0.1 to .15 gram doses.

EXALGIN FOR HYPODERMIC USE.—To obviate the objection attaching to the use of this drug because of its sparing solubility, Cesaris recommends the following combination:

Exalgin.....	.1 part
Sodium Salicylate.....	.1 parts
Distilled Water.....	.10 parts

E. B. HALLIDAY, Acton, Ind.—The Era is valuable from cover to cover, and the only way I know to improve it is to give us more of the same if it could possibly be done for the money.

FORMULARY AND QUESTION BOX.

The object of this department is to furnish our subscribers with reliable and tried formulas and to discuss questions relating to practical pharmacy, prescription work, dispensing difficulties, etc.
Requests for information are not acknowledged by mail and ANONYMOUS COMMUNICATIONS RECEIVE NO ATTENTION. To insure answer in the next number, queries should be in our hands *ten days* prior to the date of issue.

6030. Elixir of Pyrophosphate of Iron, Quinine and Strych-nine.

(A. R.) A. Rosenwald, of Chicago, commenting upon the answer to this query presented in our March 15th issue, says the formula which he employs is:

Sulphate of quinine..	64 grains.
Citric acid.....	10 grains.
Pyrophosphate of iron	128 grains.
Water of ammonia...	20 to 30 drops.
Water	1 ounce.
Simple elixir	15 ounces.
Sulphate of strych-nine	2 grains.

A formula by Haussman and contributed to the Era directs trituration of 1 grain of strychnine and 64 grains of quinine sulphate with 5 grains of citric acid until thoroughly mixed. The whole to be then rubbed up with 3 fluid ounces of alcohol gradually added. Then heat 6 fluid ounces of syrup to about 150° F. and add to the alcoholic mixture and stir until clear. Dissolve 256 grains of iron pyrophosphate in 4 ounces of water with heat, if necessary, and add 3 fluid ounces of orange flower water. The two solutions are then mixed, and, when cold, just enough sodium bicarbonate in solution is added to make it neutral in reaction. Allow to stand a few hours and filter through white paper. The precipitation which is sometimes observed in mixtures of this character is supposed to be due to lack of care in regulating the temperature at which the alcoholic and aqueous solutions are mixed. This should not rise above 140° to 150° F., as above this point too much alcohol is evaporated, and then the precipitate forms.

6125. Hair Curling Liquid.

(J. F.) A number of formulas were presented on page 44 of the Era for January 15, 1892.

6126. Palatable Cod Liver Oil.

(W. W. P.) See Era of January 15th, 1894, page 61, query No. 5905. Also see last issue (April 15), page 369.

6127. French Developer.

(R. & P.) We are unable to answer your query, as you give us no collateral information to assist us in our search.

6128. Papine.

(Student.) This is a proprietary preparation whose exact composition is maintained a secret. A formula, which, it is said, will produce a preparation to serve quite similar purposes, consists of

Deodorized tincture of opium (U. S. P. 1870),	3½ fl. ounces.
Simple elixir.....	13 ounces.

One fluid dram represents 1 grain of opium.

6129. Cure for the Heart.

(G. W. P.) Fenner gives this formula for a heart corrector and regulator:

Digitalis, in coarse powder,	1 ounce.
Hyoscyamus, in coarse powder	1 ounce.
American hellebore (Veratrum viride)	2 drams.
Diluted alcohol, sufficient to make	1 pint.

Percolate the drugs with the diluted alcohol until a pint of tincture is obtained. The dose is from ¼ to 1 teaspoonful for palpitation or other disturbances of the heart.

6130. Official and Official.

(R. O. B.) There has always been more or less confusion relative to the proper employment of these two terms. It is now accepted, however, that official applies only to those articles which are recognized in the U. S. Pharmacopoeia, while official is employed to denote any substance used in pharmacy or kept in the stock of the pharmacist. The subject is found considered in very interesting form in an article in the Era of July 15, 1892, page 40, to which we would refer you.

6131. Antiseptic Powder.

(C. C. S.) We are not familiar with formula of Koch's antiseptic powder, but, as you state it contains among other ingredients alum, zinc and menthol, it would seem that it was of the same general type as many other so-termed antiseptic powders.

Here are two typical formulas:

(1)

Boric acid.....	70 parts.
Iodoform.....	25 parts.
Salicylic acid.....	4 parts.
Oil eucalyptus.....	1 part.

(2)

Ammonio-ferric alum.....	1 ounce.
Boric acid.....	1 dram.
Zinc sulphate.....	½ dram.

You can easily prepare some article of this general nature from the types given and perfume it to taste.

6132. Toothache Remedy.

(F. G. B.) In addition to the formulas for tooth waxes, given elsewhere in this department, we reproduce the following formulas from a previous issue:

1. Dental Stopping:

Tannin	4 ounces.
Camphor	8 ounces.
Colloidon	2 pints.
Carbolic acid.....	1 ounce.
Sulphuric ether.....	3 ounces.

2. Tooth Balsam:

Extract of opium.....	1.0
Camphor	1.0
Peruvian balsam.....	1.0
Powdered mastic	2.0
Chloroform	20.0

To be applied on cotton.
See also Era Formulary, formula 2770 and following.

6133. Perspiring Feet.

(Student.) Here are some formulas from the Era Formulary:

(1)

Talc	10 parts.
Alum	2 parts.

Largely used in Swiss army, preferable to chromic acid, and applicable even for sore feet.

(2)

Naphthalin in scales is simply strewn into the stockings or shoes.
--

(3)

Oleate of zinc, powdered..	1 ounce.
Boric acid, powdered.....	2 ounces.
French chalk, powdered..	3 ounces.

(4) A powder composed of salicylic acid, soap, talc and starch. The powder renders the feet firm, induces an agreeable softness, and removes all unpleasant odor, its action being to prevent the formation of butyric, valerianic, and other acids of the same family, which injure the feet.

6134. Phospho-Guarana With Celery.

(T. D. S.) The formula for this preparation is the property of a gentleman who has not yet favored the profession with it. We would suggest that you make a preparation of your own, and offer the following as an experimental formula: First make an elixir of celery and guarana with 2 ounces each of fluid extract of guarana and fluid extract of celery, with enough aromatic elixir (N. F.) to make 16 ounces. Filter, if necessary, and add to it 4½ pints syrup of roses, 2 pints syrup cinnamon and 8 fluid ounces of acid solution of phosphates.

The acid solution of phosphates, which, by the way, will serve you in place of the proprietary preparation you name, consists of the following:

Potassium phosphate..	80 grains.
Magnesium phosphate..	160 grains.
Sodium phosphate.....	80 grains.
Calcium phosphate.....	4 drams.
Orthophosphoric acid..	8 fl. ounces.
Water, enough to make	8 pints.

6135. Stamping Liquid.

(J. G. R.) You are, of course, aware that in the majority of cases a stamping powder is employed, and the Era has several times published formulas of this nature. See Era, January 15, 1893, page 254, in reply to query No. 584.

For a liquid we are told that the following serves well: Dissolve 1 dram each of rosin and copal in 4 fluid ounces of benzine and with a little of this liquid, triturate ½ dram of Prussian blue and finally mix thoroughly with the remainder.

Here is another, somewhat of the nature of an oil paint: Zinc oxide is to be ground in oil and then thinned with lard oil to the consistency of cream. If desired colored, Prussian blue, also ground, in oil, may be admixed with it. Such a paint is to be applied through a stencil, preferably with the use of a spatula. If it is desired to remove this afterward from the fabric, benzine may be employed. This method, it seems to us, is hardly a satisfactory one, and doubtless the first suggested you will prefer.

6136. What Is It?

(M. M.) Sends the following prescription, as near as we can make it out:

Rx.

Pilocarpine hydrochlorate,	5 grains.
Otto of rose.....	5 minims.
Oil sarma.....	4 drams.
Glycerine	1 ounce.
Oil sweet almonds.....	2 ounces.
Spirits camphor.....	3 ounces.

Mix, rub well into the scalp night and morning.

Our correspondent wants to know what the third ingredient is. We confess that as the name is written, we can throw but little light upon the matter, but inasmuch as the prescription sent us is but a copy, we think possibly there has been some error in transcribing. From the nature of the prescription, we see that it is a preparation for the hair and scalp, and we are inclined to think the ingredient in question is say, oil of sesame,

though there is, to be sure, little similarity in the names. We should like the opinions of our readers upon the matter.

6137. Cane Sugar to Maple Sugar.

(Inquirer.) The impression prevails that maple sugar is largely adulterated with cane sugar. The United States Agricultural Department has done a good deal of work in the examination of market samples of maple sugar and reports that at the present time the resources of chemistry are powerless to detect adulteration with cane sugar. The sugar of maple sap is identical in composition with that of the sugar cane, sorghum and sugar beet, and no discrimination in such cases can be made by analysis. Glucose added as an adulterant can, however, be easily detected by the various tests and estimation of its reducing power. There are various articles sold for adulterating maple syrup, particularly an extract or decoction of the hickory bark or wood. This extract is said to contain a flavor very similar to that of maple sap, and its use is reported to be in large amount. There are samples of so-called maple sugar on the market, which are practically nothing but low-grade brown sugars, possibly flavored to approach nearly in taste genuine maple, but, as stated above, no method of analysis will detect the adulteration of the ordinary maple sugar by cane sugar.

6138. Cancer Cure.

(B. H. G.) There are many so-called cures for cancer, including those which have found more or less recognition in regular medical practice and others which are of a quack nature. The U. S. Dispensary, in speaking of the use of zinc chloride, mentions its employment in combination for the treatment of cancerous affections, etc. Dr. Felix's Caustic Paste is employed in the treatment of cancerous growths, and is composed of starch, 37 parts; wheat flour, 112 parts; mercuric chloride, 12 parts; dry zinc chloride, 110 parts; pure iodol, 10 parts; croton chloral, 10 parts, camphor bromide, 10 parts; crystallized carbolic acid, 10 parts; and distilled water enough to make a stiff homogeneous paste.

Another method of applying zinc chloride is to triturate 10 parts of it with 2 parts of 60 per cent alcohol and, under constant trituration, incorporate 15 parts of wheat flour, and make the mass into cylinders of suitable size.

Arsenic is the chief ingredient in many so-called remedies for cancer, but the use of it or any other agent should be conducted only under the advice and supervision of a competent physician. We cannot give the necessary medical advice, but would refer you to some good physician, strongly cautioning you against treating cancerous affections by remedies of whose nature and effects you know little.

6139. Making Vinegar.

(N. C. M.) Vinegar is made from cider by merely allowing it to ferment at a temperature between 75° and 90°. The article known in commerce as vinegar is made from alcohol, which may, of course, be procured from any source. An outline of the process is given in the dispensary. Here are several formulas:

(1.) Put cider in a clean cask and add to it vinegar containing abundance of mother of vinegar; after some days, if the acetic fermentation has taken place and the souring is going on, add an-

other portion of the cider, and at similar intervals a third and fourth. When the whole has become vinegar, take out as much as is equal to the vinegar put in, and replace by fresh cider, and so proceed. The casks should never be but partly full; good exposure to air is necessary, and the temperature should be kept up to 86° F.

(2.) A domestic vinegar may be made by dissolving 1½ pounds sugar to each gallon water used, with ¼ pint good yeast. If the heat of the mixture be maintained at 70° to 80° F., aceticification will set in, so that in two or three days it may be racked off from the sediment into a cask; it then receives the addition of 1 ounce of cream of tartar and 1 ounce of crushed raisins; when completely free from sweet taste, bottle and cork closely. The juice of currants, gooseberries, and many other fruits, and of beets, may be thus made into vinegar, either alone or in combination with syrup.

Considerable information upon vinegar has been published from time to time in the Era, and we suggest you turn to the indexes of the various volumes for references upon the subject.

6140. South Dakota Pharmacy Law.

(R. F. R.) Certificates of registration are granted to persons not less than eighteen years of age who have had two years' experience in compounding drugs in stores where the prescriptions of physicians are dispensed, and who have passed a satisfactory examination before the State Board of Pharmacy. The board may, at its discretion, accept certificates from other states whose standards of competency are equal to that required in South Dakota. Graduates from colleges of pharmacy whose courses of study are approved by the board may be registered without examination. In the several sections of the law is decreed that the applicant for registration shall pay a fee of \$2, the same sum also for registered assistant. If applying for registration upon examination, the fee is \$2, with an additional sum of \$3 before the certificate is made out. The annual registration fee is fixed by the State Pharmaceutical Association, but must not exceed \$5. Retirement of a pharmacist from the profession shall not deprive him of the right to renew his registration when he wishes to resume practice. Sections of the law apply to the sale and registration of poisons and enumerate the acts which shall subject the pharmacist to penalties for violation of regulations. Adulteration and sophistication of drugs are also made subject to penalties. For further information and copy of law, address the secretary of the board, I. A. Keith, Lake Preston, S. D.

6141. Nervine.

(G. W. P.) We cannot supply the formula for the proprietary preparation you name, but would refer you to formulas 30, 56 and 253 in the National Formulary.

The following, taken from Fenner, are typical formulas for nerve preparations, such as are now on the market:

(1.) Bromide of ammonium, 1¼ ounces av. Valerianate of ammonium ¼ ounce av. Fluid extract of valerian 1 fl. ounce. Fluid extract of hyoscyamus 1 fl. ounce.

Fluid extract of coca..... 1 fl. ounce.
Syrup 2 fl. ounces.
Simple elixir, enough to make 1 pint.

Mix the liquids and dissolve the salts in the mixture; after standing 24 hours filter. Dose from a teaspoonful to a tablespoonful, as required.

(2.) Bromide of potassium..... 640 grains.
Sulphate of morphine..... 8 grains.
Valerianate of ammonium 256 grains.
Fluid extract of valerian 1 fl. ounce.
Fluid extract hops..... ¼ fl. ounce.
Water of ammonia..... 1 fl. dram.
Syrup 2 fl. ounces.
Simple elixir, enough to make 1 pint.

Dissolve the salts in the elixir and syrup, add the fluid extracts and the water of ammonia, let stand a day or two and filter. Dose, a teaspoonful to a dessertspoonful.

6142. Tooth Wax.

(A. W. W.) One of the following, taken from the Era Formulary, will doubtless serve you:

(1.) White wax 30 parts.
Venice turpentine 12 parts.
Mastic, powdered 5 parts.
Opium, powdered 3 parts.
Chloral hydrate 2½ parts.

(2.) Yellow wax..... 60 parts.
Venice turpentine..... 10 parts.
Pulverized dragon's blood 10 parts.
Pulverized mastic..... 10 parts.
Pulverized opium..... 2.5 parts.
Salicylic acid..... 5 parts.
Oil of cloves..... 5 parts.
Oil of cajuput..... 1 part.

With a gentle heat mix into a mass. Stir while cooling and roll out into sticks weighing 2.5 grams. Wrap in paraffined paper and preserve in stoppered bottles.

(3.) Paraffin 94 grams.
Burgundy pitch..... 800 grams.
Oil cloves..... ¼ fl. dram.
Creosote ¼ fl. dram.

Melt the first two ingredients and when nearly cool add the rest, stirring well. May be made in small pills or sent out in form of small cones or cylinders.

(4.) Melt white wax or spermaceti, 2 parts, and when melted add carbolic acid crystals, 2 parts; stir well until dissolved. While still liquid immerse thin layers of carbolized absorbent cotton-wool and allow to dry. When required for use, a small piece may be snipped off and slightly warmed, when it can be inserted into the hollow tooth, where it will solidify.

6143. "Tinting Oil" for Oil Painting.

(E. S. E.) Different of the fixed oils, such as linseed, poppy, nut, etc., are used for similar purposes, but just what particular one is meant by the title in this instance, we cannot say. A dealer in artists' materials in this city says that he most always furnishes poppy oil when "tinting oil" is asked for. Poppy oil is inferior in strength, tenacity, and drying to linseed oil, but it has the reputation of keeping its color better than the latter oil, and on this account it is generally employed in grinding white and most of the light pigments. Botted linseed oil is sometimes mixed with it to increase its

drying properties, or it may be prepared in the following manner: Take 3 pints or pounds of pure water, 1 ounce of sulphate of zinc (white vitriol), and 2 pounds of poppy oil. Expose this mixture in an earthen vessel capable of standing the fire, to a degree of heat sufficient to maintain it in a slight state of ebullition. When one-half or two-thirds of the water has evaporated, pour the whole into a large glass bottle or jar, and leave it at rest until the oil becomes clear. Decant the clearest part by means of a glass funnel, the beak of which is stopped with a piece of cork; when the separation of the oil from the water is completely effected, remove the cork stopper and supply its place by the forefinger, which must be applied in such a manner as to allow the water to escape, and to retain only the oil. Poppy oil, when prepared in this manner, becomes, after some weeks, exceedingly limpid and colorless.

Retouching Varnish.—The *Cyclopedia of Receipts* gives these:

- (1.)
 Sandarac 1 ounce.
 Castor oil 80 grains.
 Alcohol 6 ounces.
 First dissolve the sandarac in alcohol, and then add the oil.
- (2.)
 Alcohol 150 parts.
 Sandarac 25 parts.
 Camphor 2½ parts.
 Castor oil 5 parts.
 Venetian turpentine 2½ parts.

6144. Caustic Balsam.

(Student.) We published comprehensive reply to a similar query in the *Era* of July 15, 1893, page 63, but as you are a new reader, we reproduce the substance of what was then said.

Suppositious formulas have been printed with great regularity, and we can only reproduce the various guesses, allowing you to judge how near they come to the mark. One formula directs to mix 3 ounces oil of turpentine, 15 drops oil of thyme, ¼ dram oil of rosemary and ½ dram oil of amber. Very cautiously add 6 drams sulphuric acid, allowing the action to cease after each small addition, then set aside uncovered for six hours, and add 2 drams camphor, ½ ounce tincture cantharides, and sufficient sulphuretted linseed oil to make 8 ounces. The latter ingredient is made by adding 16.6 parts sublimed sulphur to 100 parts of linseed oil, and beating the whole to a brownish black liquid. Take care to avoid explosions or other accidents.

Another formula which, as you may see, is very different, directs to mix 4 drams croton oil with 2 fluid ounces cottonseed oil, add 20 minims of sulphuric acid gradually, under thorough stirring, and finally 2 fluid drams oil of turpentine, ½ fluid dram oil of thyme, 1 fluid dram oil of camphor, 4 fluid drams kerosene.

Last year the *New Idea* stated that the following represented the composition of the article:

- Sulphurated oil 2,190 parts.
 Oil turpentine 340 parts.
 Camphor 20 parts.
 Alcohol 30 parts.
 Sulphuric acid 90 parts.
 Oil of red thyme 3 parts.
 Oil rosemary leaves 10 parts.
 Oil of amber (rectified) 8 parts.

The alcohol may be replaced with alcoholic tincture of cantharides (1 to 10).

6145. Golden Tincture.

(E. K. H.) A wide variety of opinion prevails as to just what is meant when Golden Tincture is inquired for. Our contemporary, the *Western Druggist*, some years ago replied to a correspondent as follows: "The query has been answered by several other journals, where it is said that "Golden Tincture" is in demand among the Germans, and that Hoffman's anodyne, colored by means of tincture of turmeric, is always dispensed. This is a mistake. This turmeric preparation is mentioned in *Fenner's Formulary*, under the title of "Golden Anodyne"—and not tincture. The "goldtinktur" used by the Germans is the Liquor Anodynus Matlaci Bestuscheffii (now in U. S. P. under title Spirit of Ether), and is distinct from the Liquor Anodynus Mineralis Hoffmanni, the former containing iron, whence the golden color. As a matter of curiosity and to show with what a heterogeneous collection of names German apothecaries are obliged to burden their memories, some of the synonyms of this preparation may be enumerated: Liquor anodynus martialis, tinctura ferri muriatici aetherea, aether sulphurico-alcoholicus oxydulato ferrarius, spiritus aetheris ferrarius, spiritus, ferri chlorati aethereus, spiritus aethereus ferratus, spiritus sulphurico-aethereus ferruginosus, tinctura ferri chlorati aetherea, tinctura ferri tonica-nervina Bestuscheffii, tinctura ferri muriatici spirituosus-aetherea, solutio chloreti ferri aetherea, solutio muriatis ferri aetherea, aether martialis spirituosus."

Here are several other formulas for "Golden Tincture."

- (1.)
 Red lavender 1 part.
 Ether 2 parts.
 Acetated tincture of opium 2 parts.
- (2.)
 Ether 1 part.
 Chloroform ½ part.
 Laudanum 1 part.
 Alcohol 1 part.
- (3.) Eclectic formula:
 Balsam tolu 1 ounce.
 Resin guaiaac 1 ounce.
 Hemlock gum 1 ounce.
 Myrrh 1 ounce.
 Oil hemlock 1½ drams.
 Oil wintergreen 1 ounce.
 Alcohol 4 pints.

6146. Blackening Gun Barrels.

(B. H. G.) Mix 8 parts of butter of antimony, 4 parts sulphuric acid, and 2 parts of empyreumatic pyroigneous acid, or gallic acid. Apply several coats of the mixture to the polished steel until it is black enough. An English method of staining gun barrels brown consists in rubbing up 28 parts of sweet spirit of nitre with 25 parts corrosive sublimate, adding to this solution 33 parts powdered sulphate copper, 28 parts tincture of steel, and 500 parts of rain water. The mixture is allowed to stand in a well-closed vessel in a warm place for 12 hours. The gun barrel is rubbed with emery paper and polished, washed and dried thoroughly, and then coated over with this mixture. It is then well rubbed with a scratch brush and coated, and after repeating several times, it is polished with leather moistened with olive oil mixed with oil of turpentine, then dried and finally polished with oil.

A third method: Make a mixture of 1 part each of bismuth chloride and copper chloride, 2 parts corrosive sublimate, 6

parts hydrochloric acid, 5 parts alcohol, and 50 parts water. After the metal is thoroughly cleansed and free from grease, it is coated with this solution, allowed to dry, and the metal placed in boiling water, where it is kept for half an hour. If the color is then not dark enough, repeat the operation. The result is improved by placing the metal for a few hours in a bath of boiling water or coating the surface with oil and heating until the oil is driven off.

Here is what the *Scientific American Cyclopedia of Receipts* says on the subject: First take chloride of mercury and sal ammoniac; second, perchloride of iron, sulphate of copper, nitric acid, alcohol, and water; third, perchloride and protochloride of iron, alcohol and water; fourth, weak solution of sulphide of potassium. These solutions are each successively applied, each becoming dry before the other is used. No. 3 is applied twice, and a bath of boiling water follows Nos. 3 and 4. The shade of color is fixed by active friction with a pad of woolen cloth and a little oil. The shade thus obtained is a beautiful black of uniform appearance. This process is used in the manufacture of arms at St. Etienne, France. We regret that the proportions of the ingredients are not given. Several of our gunsmiths have made many inquiries as to the mode of producing the blue-black coating on the Whitworth and other English rifles. Perhaps the above solution will effect the object. The alcohol is used to make the application dry quickly. The perchloride of iron and the sulphate of copper in No. 2 should be used only in a moderately strong solution, and only about 10 per cent of nitric acid added to the water. No. 2 applied in three or four coats will form the common brown coating for gun barrels. After the last application has become dry, it is rubbed with a wire scratch brush, washed with warm water and afterward rubbed down with a composition of beeswax dissolved in turpentine.

IODINE EUGENOL.—Obtained by treating an alkaline solution of eugenol with iodine.

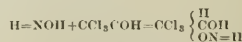
SALUMIN, ALUMINIUM SALICYLATE.—Recommended in catarrhal affections. Riedel.

DI-iodoform-Tetraiodoethyl-ene.—C₂I₄—Of all iodized antiseptics this contains the highest per cent of iodine; no odor, yellow crystals.

THIOFORM.—Basic dithio-salicylate of bismuth. A substitute for iodoform, inodorous, yellow-brown, insoluble powder. Advantages claimed, being inodorous and non-toxic.

LORETIN. **iodo-oxy-chinolin sulfonic acid.**—Iodoform substitute, inodorous, yellow; almost insoluble in water and alcohol; forms soluble salts with alkalis.

CHLORALOXIME.—v. Heyden prepared a new class of compounds from chloral and oximes:



This body, on being heated with water, separates its chloral. Recommended as hypnotic.

E. W. SIMMONS, *Castroville, Cal.*—My opinion is that the *Era* is about as near perfect as is possible for a pharmaceutical journal to be. It would be hard to tell which part is the most valuable.

EXAMINATION QUESTIONS.

This department is for the publication of questions and answers from our readers; the object being to place before them questions for self-examination and to indicate the directions in which study can be profitably carried on.

We solicit questions to which replies are desired, particularly questions suggested by personal experience and study.

Correct answers to the questions in each series will be published in a subsequent issue of the paper, as announced, together with the names of all persons sending us correct replies.

Write the number of the series at the top of your reply and write on one side of sheet only.

Address—EDITOR PHARMACEUTICAL ERA,

106 Fulton Street, New York.



F. R. CURRY.

The winner of the highest standing in the competition in Series No. 2 of Examination Questions is Mr. F. R. Curry, of Minden, Ont., who, like the winner of the first series, was awarded a total of marks but one short of the highest possible rating.

Mr. Curry was born in Omemece, county of Victoria, Ont., on June 7, 1860. He received his education at the high school in that town, and at the age of 14 was apprenticed to his brother, Dr. C. D. Curry, of Minden, Ont., for a term of three years. He passed his examination as a Chemist and Druggist in February, 1878, and in September of that year succeeded to the business of his brother. On March 17, 1879, along with all the other stores on that side of the street, his store was destroyed by fire, but the loss, however, was very slight, inasmuch as most of the stock was saved. He immediately resumed business in the sample room of a hotel, and later was enabled to go into appropriate quarters. On the 7th of July, 1880, he had another experience with the fire fiend; this time suffering total loss of store and stock, with but small insurance. Six months later he again started in business, moving into new premises, where he is still to be found.

Mr. Curry is a student of the higher branches of pharmacy, taking particular interest in the professional aspect of his calling and in every way endeavoring to fit himself for the highest duties of the profession.

SERIES NO. 2.

1. In the nomenclature of the Pharmacopoeia how are the titles of substances expressed?

2. What is effervescence? Deliquescence? Name two pharmacopoeial salts which effervesce. Two which are deliquescent.

3. Outline the official process for making syrup of wild cherry. Why is this process used? Upon what constituent does the virtue of this preparation depend? Why is glycerine used in the preparation?

4. Give the official title and the common and maximum doses of Kermes mineral, mercuric chloride, African pepper, tincture of opium, tincture of digitalis, tincture cantharides. Which are toxic, and what are the antidotes?

5. Belladonna. Give the botanical name. Common name. Country indigenous to. What part is used? When should it be collected? What is the active principle? What is the dose of the powdered leaves? Of the principal alkaloid? Name antidote for belladonna poisoning. Name the official preparations of belladonna.

6. What do you understand by a poison? An antidote? A dose?

7. Write correctly in Latin, without abbreviation, and state the quantities of each ingredient, a formula to make one pint of an elixir, of which each fluid dram is to contain 1 grain of quinine, 100 grain strychnine, and 2 grains phosphate of iron.

8. Write an equation showing the reaction which occurs in the preparation of syrup iodide of iron by the official process. Spirit Mindererus. Hydrated Alumina.

9. What is the difference between a hydrocarbon and a carbohydrate? Give an example of each.

10. What is an essential oil? Name several official ones, and state their properties and dose. How would you detect the addition of alcohol to an essential oil?

ANSWERS TO SERIES NO. 2.

1.

Pharmacopoeial titles are expressed:

(a) By the official name, which is always in the Latin language;

(b) By the English name;

(c) By the synonym;

(d) By the botanical name (in the case of plants);

(e) By symbolic formula (in the case of chemicals).

2.

Effervescence is a word derived from the Latin "effervesco," "to boil over." It is that commotion in a liquid caused by the evolution and escape of bubbles of gas, usually carbonic acid, as in the decomposition of a solution of potassium carbonate by acetic acid.

Deliquescence is the property that certain substances possess of absorbing moisture from the air.

Two pharmacopoeial salts which effervesce are sodium carbonate and zinc sulphate. Two pharmacopoeial salts which deliquesce are calcium chloride and potassium carbonate.

3.

The wild cherry bark in No. 20 powder is treated with a sufficient quantity of the menstruum (glycerine and water) and allowed to macerate 24 hours in a closed vessel, when it is packed into a percolator and the remainder of the menstruum poured upon it. Percolation is begun, and when the liquid has disappeared from the surface of the drug it is followed by enough water to make the percolate measure the desired quantity. In this percolate the sugar is dissolved by agitation without heat, the syrup strained and enough water added to complete the pre-

paration. Or, instead of dissolving the sugar in the percolate by agitation, it may be placed in a percolator and the percolate obtained as directed in the preceding formula poured upon it and a syrup prepared as outlined in the alternative pharmacopoeial process for the preparation of syrups. When wild cherry is allowed to macerate in water, an oil containing hydrocyanic acid is developed upon which the value of the syrup of wild cherry depends. This oil is produced from amygdalin by the action of a proteid resembling emulsin. It is coagulated or altered by heat, and the powdered bark introduced into hot water does not yield any volatile oil. The bark contains besides the volatile oil, tannin, gallic acid, resin, starch and other common vegetable principles. Glycerine is added to prevent precipitation.

4.

(a) Antimonium Sulphuratum:

Dose, 1-2 grains; maximum, 10-20 grains.

(b) Hydrargyri Chloridum Corrosivum:

Dose 1-32-1-12 grain; maximum, 1-12-1-3 grain.

(c) Capsicum:

Dose 2-3 grains; maximum, 5-10 grains.

(d) Tinctura Opii:

Dose, 5-15 minims; maximum, 15-30 minims.

(e) Tinctura Digitalis:

Dose, 10-20 minims; maximum, 30-60 minims.

(f) Tinctura Cantharidis:

Dose, 3-10 minims; maximum, 10-20 minims.

All are more or less toxic.

Those requiring special notice are corrosive sublimate, tincture of opium, tincture of digitalis, and tincture of cantharides. Antidote for corrosive sublimate, Kermes mineral and tincture cantharides: Give white of eggs (half dozen or more raw) or flour mixed with water. Promote vomiting with warm water containing baking soda, or cause it with mustard (a tablespoonful stirred to a cream with water). Give strong tea or coffee; stimulants if needed; laudanum. (20 drops) if much pain; demulcent drinks of flaxseed or slippery elm. Tincture of Opium: Give emetic (if necessary) of mustard (a tablespoonful stirred to a cream with water). Let patient have plenty of fresh air; maintain a horizontal position. Keep the body warm, but try to rouse the patient by ammonia to nostrils, cold douche to the head, friction and mustard plasters to limbs, etc. Use artificial respiration. Tincture of Digitalis: Give emetic of mustard (a tablespoonful stirred to a cream with water), followed by large draughts of warm water. Give strong tea or coffee, with powdered charcoal; stimulants (whiskey, etc.), if necessary; rouse the patient, if drowsy; heat and friction to extremities; artificial respiration.

5.

Belladonna. Botanical name, *Atropa belladonna*, common name, deadly nightshade, or belladonna; indigenous to Europe; leaves and roots are directed by the U. S. and Br. Pharmacopoeias, the latter including the young branches, which are probably not less efficient. The leaves should be collected in June or July, when the plant is in flower; the roots in the autumn or early in the spring, and from plants three years old or more.

The active principle is atropine $C_{17}H_{23}NO_3$, an alkaloid. Dose of the powdered leaves, one or two grains; of atropine, 1-100 to 1-50 gr. Antidotes and treatment for belladonna poisoning: Give emetic of mustard (a tablespoonful stirred to a cream with water), followed by large draughts of warm water. Tannic acid, or substances containing it, such as infusion of galls, strong tea, or coffee, etc., with powdered charcoal. Morphine, physostigmine or pilocarpine are the physiological antidotes. Official preparations of belladonna leaves; Extractum Belladonnae Foliorum, Emplastrum Belladonnae, Unguentum Belladonnae. Official preparations of the root: Extractum Belladonnae Radicis Fluidum, Linimentum Belladonnae. Atropine and atropine sulphate, while not strictly official preparations of belladonna, are obtained from the root.

6.

A poison is any substance which, when introduced into the system either directly or by absorption, produces violent morbid or fatal changes, or interferes other than mechanically with the conditions of health. An antidote is a remedy capable of preventing or counteracting the effects of poison, whether by physiological, physical, or chemical action. The term is sometimes used in a more general sense to signify any method of treatment employed against poison, or to counteract the deleterious effects of agents improperly used. A dose is the quantity of a medicine which, when taken, will produce therapeutic effects. It varies with the age, sex, idiosyncrasy, and general condition of the patient.

7.

℞ Ferri phosphatis gr. cclvj.
 Potassii citratis gr. xxxij.
 Quinine hydrochloratis gr. cxxviii.
 Strychine sulphatis gr. jū.
 Alcoholis ʒ. iii. j.
 Aque m. cccxix.
 Elixiris aromatici, quantum
 sufficit ad Oj.

9.

A hydrocarbon is a compound containing only carbon and hydrogen. Among the different series of hydrocarbons thus classified are methane CH_4 , ethane C_2H_6 , propane C_3H_8 , butane C_4H_{10} , valantane C_5H_{12} , etc., up to pentatriacontane $C_{35}H_{72}$. Of those mentioned the last named is a solid, quintane is a liquid, and the remainder are gases. Carbohydrates are compounds containing hydrogen and oxygen, and no other elements, the carbon atoms being six in number or a multiple of six, while the hydrogen atoms are twice the number of the oxygen atoms. As examples of carbohydrates are glucoses $C_6H_{12}O_6$, saccharoses $C_{12}H_{22}O_{11}$, myloses $C_6H_{10}O_5$. Among the glucoses are dextrose or grape sugar, laevulose, or fruit sugar, galactose, inosite and sorbin. Saccharose, or cane sugar, maltose, or malt sugar, trehalose, lactose, or milk sugar, and synanthose, are saccharoses, while dextrine, starch, glycogen, inulin, cellulose and gum are amyloses.

10.

Essential oils are those proximate principles to which in the majority of cases the odors of plants are due. They are characterized as odorous, volatile, inflammable liquids, freely soluble in alcohol, ether, chloroform, bisulphide of

carbon, benzol, the fixed oils, and slightly soluble in water. When dropped on paper they leave a fatty stain which disappears on the application of heat. They are sometimes called distilled oils from the mode in which they are usually procured. They exist in all odiferous vegetables, sometimes pervading the plant, sometimes confined to a single part; in some instances contained in distinct cells, and preserved after desiccation, in others formed upon the surface, as in many flowers and exhaled as soon as formed. Occasionally two or more are found in different parts of the same plant. Thus, the orange tree produces an oil in its leaves, another in its flowers, and a third in the rind of the fruit. Some essential oils, as those of bitter almond and mustard, are found during the process of distillation, out of substance of a different nature, pre-existing in the plant. The essential oils may be conveniently divided into three classes; 1, the nonoxygenated oils, consisting exclusively of carbon and hydrogen, as the oils of turpentine and copaiba; 2, the oxygenated oils, containing carbon, hydrogen, and oxygen, as oil of cinnamon, and most of the aromatic oils; and 3, the sulphuretted oils, containing sulphur, as the oils of horseradish and mustard. Alcohol in essential oils may be detected by several methods. 1. Alcohol will cause a diminution of the volume of the essential oil when it is agitated with an equal bulk of water or glycerine (according to Hager, 1888, diluted with 20 per cent of water), in a graduated tube; the difference indicates approximately the amount of the adulteration. If olive oil be used in place of water, the alcohol, unless present in very small quantity will separate. 2. Fused calcium chloride and dry potassium acetate are insoluble in volatile oils, but in the presence of alcohol become either soft or liquid. 3. Red aniline is insoluble in the oil, but becomes soluble if alcohol is present, producing a red color. 4. On heating potassium acetate and sulphuric acid with the oil, if alcohol is present, acetic ether is developed.

Oleum chenopodii, anthelmintic, dose, 3 to 10 minims. Oleum juniperi, carminative and diuretic, dose, 5 to 15 minims. Oleum cajuputi, stimulant diaphoretic, and anthelmintic, dose, 1 to 5 minims. Oleum hedeomae, aromatic stimulant, and emmenagogue, dose, 1 to 5 minims.

COMMENTS ON ANSWERS TO SERIES NO. 2.

1. In describing the titles of the various pharmacopoeial substances many seemed to overlook the fact that the word "official" is no longer employed by the pharmacopoeia as a descriptive word. This term was dropped in favor of "official." The adoption of the Pharmacopoeia as a standard authority by the government and a number of the states justifies the use of word "official," which is now generally understood to be synonymous with pharmacopoeial, and is applied to any substance or preparation recognized by the Pharmacopoeia.

2. A number did not recognize the distinction between effervescence and efflorescence, giving the definition of the latter term for that of the former. In some cases the water of crystallization is so feebly combined that it gradually separates when the substance containing it is exposed to dry air at ordinary temperatures. This separation is accompanied

by loss of crystalline character, the substance falling to powder. This change is called "efflorescence" and is illustrated by crystals of alum and ferrous sulphate. Notice then the distinction: the question called for a definition of effervescence, not efflorescence. It did, however, call for the names of two pharmacopoeial salts which effloresce.

3. A large percentage of the replies here failed to note that the present pharmacopoeial process for syrup of wild cherry directs the glycerin and a certain proportion of the water to be mixed and a sufficient quantity of the liquid used to macerate the drug. The present syrup contains less sugar, but fully three times as much glycerine as that made after the Pharmacopoeia of 1880. That work directs the glycerin to be added to the preparation after solution of the sugar in the percolate. But few of the answers contained any reference to the second or alternative process given in the U. S. P.

4. This question was very generally answered correctly, though a number of writers gave antimoni oxysulphuretum as the official name for Kermes mineral. An allied compound or rather mixture of Sb_2S_3 and Sb_2O_3 was official in the Pharmacopoeia of 1870 under that title. The present official Kermes mineral, Antimonium Sulphuratum, is a nearly pure Sb_2S_3 , with a very small amount of antimonious oxide. It is sometimes dispensed as golden sulphur. A few writers gave Hydrargyri Chloridum Mite as the official title for mercuric chloride. Such an error is inexcusable, as it might lead to very serious results. It only emphasizes the necessity of an intimate acquaintance with the nomenclature of the Pharmacopoeia. Two or three persons gave the official Latin name of black pepper for that of African pepper and two or three gave that of cubes in reply to the same question. A few failed to give any of the official titles.

5. The replies to this question have been of a generally satisfactory character, except that many of the writers gave Abstracatum Belladonnae as one of the official preparations of belladonna. All abstracts have been dismissed from the present Pharmacopoeia. A few failed to notice the changes made in the official Latin and English titles of the belladonna preparations, giving instead of the present pharmacopoeial titles, those of the former pharmacopoeia. Thus, Extractum Belladonnae Alcoholicum, and Extractum Belladonnae Fluidum of the Pharmacopoeia of 1880 are now Extractum Belladonnae Foliorum Alcoholicum and Extractum Belladonnae Radicis Fluidum, while Tincture Belladonnae '80 is now Tinctura Belladonnae Foliorum. The corresponding English titles for the same preparations were changed from alcoholic extract of belladonna, fluid extract of belladonna, and tincture of belladonna, to the present titles, viz., extract of belladonna, fluid extract of belladonna root, and tincture of belladonna leaves, respectively.

6. A very few of the replies to this question were rather incomplete, but by far the greater number of them were clearly stated and sufficiently comprehensive to demonstrate a thorough understanding of the terms on the part of the writers.

7. But very few replies were correct, most of them exhibiting an entire lack of even rudimentary training in the formation and expression of the pharmaco-

poetical names used in prescription Latin. Again obsolete or foreign pharmacopoeial titles were not infrequently substituted for those of the U. S. P. Thus, *Spiritus Rectificatus*, *Spiritus Vini Rectificatus*, *Alcoholis Portioris* for alcohol. The use of these titles is inadmissible in view of the fact that the U. S. P. gives alcohol as the correct Latin title.

Taking a typical formula for this preparation (N. F.) and writing the prescription first in English we have.

Take of

Phosphate of iron.....256 grains.
 Citrate of potassium 32 grains.
 Hydrochlorate of quinine, 125 grains.
 Sulphate of strychnine...14 grains.
 Alcohol 1 ounce.
 Water 360 minims.
 Aromatic elixir, a sufficient quantity to 1 pint.

Translating the above into Latin, "Take" becomes "Recipe." The Latin equivalent of "of phosphate of iron" is found in the genitive form. Phosphate and iron are changed into the genitive by writing "Ferri phosphata," and in the same manner the other salts become "potassii citratis," "quininae hydrochlorata," and "strychninae sulphata." Alcohol is considered by many an indeclinable noun. If it be, it will necessarily retain the same form it does in English. Considering it a declinable noun, it becomes "alcoholis." Water becomes (genitive case, singular number), aquae and aromatic elixir is translated elixiris aromatici. "A sufficient quantity to" is translated "quantum sufficit ad," the latter word, "ad," being an adverb and meaning "up to." The Latin word "adde," a verb, meaning "add," was not infrequently employed in the replies to this question where the word "ad" should have been used. Desirable abbreviations of the quantities are employed rather than the full Latin rendering.

8. The equation for the formation of ferrous iodide as it occurs in the preparation of the official syrup iodide of iron was invariably written correctly, when written at all. The official ammonium carbonate used in the process for making spirit milderus is not a normal carbonate (NH_4), CO_3 , as was given by a number of writers. It is a compound of 1 molecule of acid ammonium carbonate with 1 of ammonium carbonate from which a molecule of water has been separated. The last mentioned compound is regarded as the ammonium salt of carbamic acid, (a compound unknown in the isolated state), having the formula $\text{NH}_4\text{N}_2\text{H}_4\text{CO}_2$. The chemical formula for the official ammonium carbonate is $\text{NH}_4\text{HC O}_3\text{NH}_4\text{CO}_2$. A number of reagents precipitate aluminum from solutions as a hydrate. Some of these reactions were correctly indicated in the equation for the preparation of aluminum hydrate, but as they did not represent the official process called for in the question, they were not considered as correct answers. The official process directs alum, sodium carbonate, and distilled water.

9. and 10. Were almost without exception satisfactorily answered.

SUCCESSFUL.

The following correctly answered eight or more of the questions in Series No. 2.

Bangs, F. W., St. Johnsburg, Vt.
 Berry, F. C., Pittsburgh, Pa.
 Blackmore, Fred, Jackson, Mich.
 Bonnett, W. H., Brookville, Pa.
 Brooks, Miss Lou, Waeleer, Texaa.

Burns, James A., New Orleans, La.
 Carpenter, C. H., East Longmeadow, Conn.
 Carrel, A. S., Sewanee, Tenn.
 Coffey, Maurice G., Johnston, Pa.
 Coleman, T. B., Omaha, Neb.
 Condit, G. E., Natick, Mass.
 Cooper, Frank A., Venetia, Pa.
 Cunningham, W. J., Beaver Falls, Pa.
 Curry, P. R., Minden, Ont.
 Diehl, J., Buffalo, N. Y.
 Dixon, John B., Almond, N. Y.
 Dolan, F. L., Freeman, Mo.
 Earl, Fred George, New York.
 Eismann, Edward, Buffalo, N. Y.
 Graham, Howard B., Ashland, Neb.
 Grant, Henry T., Taunton, Mass.
 Happer, Walter C., Scandia, Kansas.
 Heinzel, H., West Superior, Wis.
 Herlick, P. E., Groun, N. Y.
 Hewitt, Herbert W., Milford, Mich.
 Johnson, James, Vermillion, So. Dakota.
 Johnson, C. H., Zealand, Mich.
 Kimball, H., Hartford, Conn.
 Knowlton, C. M., Evansville, Ind.
 Kurz, Otto R., Detroit, Mich.
 Langhorne, Jr., W. S., Portsmouth, Va.
 Langlois, J. A., Fall River, Mass.
 Lindbo, J. A., Petersburg, Neb.
 Lockie Bros., Buffalo, N. Y.
 Madajesky, E. H., Ironwood, Mich.
 McDonald, David, Sharon, Pa.
 McIntosh, Kenneth, Verona, Mich.
 McNaughton, D. J., Whitehall, Wis.
 Mutz, J. R., Edinburg, Ind.
 Palmer, Chas., Hennessey, Oklahoma.
 Partridge, Walter B., Owego, N. Y.
 Paterson, H. O., Atlanta, Iowa.
 Pfefferkorn, Alfred C., Lawrence, Mass.
 Rasmussen, Alfred, Rock Island, Ills.
 Regan, Alfred, Boston Highlands, Mass.
 Rich, Willis S., Dean, N. Y.
 Rosenwald, Aaron, Chicago, Ills.
 Steigleder, Edward L., Allegheny, Pa.
 Sylvester, Wilber, Port Huron, Mich.
 Taylor, W. Clark, Vineland, N. J.
 Thompson, S. Leslie, Lewiston, Idaho.
 Thrush, M. Clayton, Philadelphia, Pa.
 Townner, W. M., Randolph, Neb.
 Walsh, Mrs. J. S., Del Rio, Texas.
 Walsh, Mrs. J. M., Del Rio, Texas.

SERIES NO. 3.

Replies should reach us not later than May 15, 1894. Correct answers, together with the names of all persons answering correctly eight or more of the questions, will be published as soon thereafter as possible.

1. In what proportion must two quantities of powdered opium, containing 13.5 and 16 per cent of morphine respectively be mixed to produce 8 ounces of opium containing 14 per cent of morphine?

2. A quantity of official sulphuric acid weighs 15 grams. How many cubic centimeters does it measure? A quantity of official nitric acid measures 25 cubic centimeters. How much does it weigh in grams? In grains?

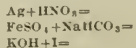
3. How would you distinguish between a root and an underground stem?

4. Which contains the larger percentage of alcohol; a solution made from equal parts by weight of alcohol and water, or one made from equal parts by measure of alcohol and water?

5. What is the percentage of bromine and how many grains of bromine are there in one ounce of potassium bromide?

6. What is an alum, chemically considered? Write the chemical symbols for two alums not containing aluminum. Name the pharmacopoeial and other varieties of alum.

7. Complete the following chemical equations:



8. What is meant by the following prefixes used in the nomenclature of salts: Mono, bi, bin, tri, quadri, di, bis, ter, tetra, super, hyper, per, sesqui, sub, bypo, proto, ortho, meta, pyro, para.

9. What are the chemical differences between red and yellow oxides of mercury? Give the chemical formula for each.

10. Which contains the more quinine (alkaloid), quinine bisulphate or quinine sulphate? Give the percentage of quinine in each salt and exhibit the figures used in your calculations.

SERIES NO. 4.

Replies should reach us not later than June 15, 1894. Correct answers, together with the names of all persons answering correctly eight or more of the questions, will be published as soon thereafter as possible.

(1) How would you distinguish between carbolic acid and creosote?

(2) What is a symbol, also what does a chemical formula represent?

(3) How would you prove that the specific gravity of iron is 7.50?

(4) Define stigma, and mention a drug which the pharmacopoeia directs shall consist wholly of stigma?

(5) How would you distinguish between gallic and tannic acids?

(6) Name the best excipient for a pill mass with each of the following: An essential oil, potassium permanganate, balsam copaiba, silver nitrate, corrosive sublimate.

(7) How would you dispense the following prescription?

Ferrous sulphate..... 60 grains.

Potassium carbonate..... 36 grains.

Mix, and divide into 24 pills.

(8) How many one-eighth grain doses should there be in one-eighth ounce bottle morphine sulphate as found in the market?

(9) What is an alcohol chemically considered? Name those covered by your definition that are official in the United States Pharmacopoeia.

(10) How would you prove the air to be a mixture and not a chemical compound?

(11) What is the difference between benzoin and benzol?

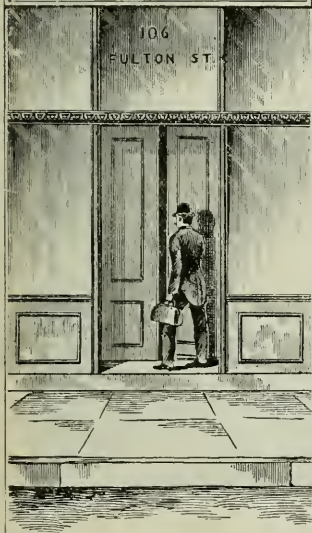
ALPHOL is a salicylic ether of α -naphthol and isomer of betol, the corresponding derivative of β -naphthol. It is prepared (Dr. d. Ph. Eis-Loth, Pharm. Jour.) by heating a mixture of sodium salicylate, sodium α -naphthalate and phosphorus oxychloride to a temperature of 120 deg. to 130 deg., the products being alphol, sodium metaphosphate and sodium chloride. The sodium salts are removed by washing with water and the alphol purified by crystallization from alcohol. It is said to resemble salol in its therapeutic effects, is administered in half to two gram doses, and in contact with the pancreatic and intestinal juices, splits up into salicylic acid and α -naphthol.

EUPARIN was obtained four years ago by Trimble from Eupatorium purpureum. C. C. Manger (Am. Jour. Phar.) has conducted further investigations upon this product and upon purifying it obtained it in prismatic or acicular crystals possessing a melting point of 116 deg. C. It is insoluble in water, sparingly in petroleum ether, readily in ether, chloroform, benzene or acetone. It forms no combination with sulphuric acid, but with chlorine a definite, though quite unstable product. Concentrated nitric acid converts it into picric acid, and on fusion with potassium hydrate it is converted into picrologol.

SHARP BROS., ALBANY, GA.—We do not want the earth for \$2.00. The Era is worth many times its subscription price. It is the embodiment of modern pharmacy and, typographically, a beautiful journal.

A DRUGGIST'S VISIT TO NEW YORK

DOWNING BUILDING
OFFICE OF
THE PHARMACEUTICAL ERA.



Lewis Hopp of the Mayell-Hopp Company, Cleveland, O., had been reading the Pharmaceutical Era for some time when he suddenly looked up, directed his gaze out onto Euclid avenue and appeared lost in thought.

"What's the matter, Lewis?" asked Tom Phillips. "Something in the Era given you food for thought?"

"Yes, indeed," was the reply. "I'm going to New York for a week or so."

"That's sudden," the other replied. "What do you want to go to New York for? Business is good."

"Yes, I know. But I see the Era has moved to New York, and that reminds me of a remark George Heebler made the other day. He said a man in our line, who could get down to New York without much trouble or neglect of business, ought to brush up his knowledge of men and things by going there at least once a year. It's about time I swept away some trade cobwebs and I'm going."

And as he said it Mr. Hopp brought his

Lewis C. Hopp tells what he saw of the New York Drug Trade.

hand down on his knee with a snap by way of emphasis.

Mr. Phillips didn't say anything for a minute or two. Then he remarked: "I think you're right. It will do you good for one thing, and then you may see something in our line that you want."

"That's just it. New York drug men are fine people to meet. They will show a man their goods, take him over their offices and factories, introduce him to men in the drug business whom it is well to know, and never expect him to buy out their business in return. It's a pleasure to meet such people, and I expect I shall have a first-class time and return with ideas and goods that will help our business a great deal. I'll wager the benefit to be secured from such a trip will profit me a thousand times more than the cost of going, staying and returning. I'm glad for one thing, too. The Era has located on Fulton street, right in the heart of the drug trade, and I can make its office my headquarters. They can give me points, too, on people to see, and that will save me time and shoe leather."

"Do you suppose the Era folks want to bother with visitors? Haven't they their own business to attend to?"

"Oh, don't you worry about that. Why, the Era folks'll be only too glad to welcome me, and they'll give me every chance to see drug men they know. Why, I'll go into their new office, shake hands with Brother Haynes, slap Newhall on the back for fun and I won't be able to find a minute to spend by myself, except when I'm sleeping, all the time I'm in New York."

"You make me want to go. You've been to New York since I have. Don't you want to stay here and let me go?"

"Oh, no. I see through that."

"Well, I'd like to go. But you ought to promise me one thing. When you come back you must tell me all about your trip; who you saw, what you saw and all that."

"I'll do it. I'll keep a diary and jot down everything."

"When do you start?"

"I think I'll take a train in the evening so as to get to New York in the afternoon. Perhaps Saturday would be the best day to go on."

"Where are you going to stop in New York?"

"I may take the advice of a friend and

stop at the Imperial. That's a first-class house and very popular with the drug people. However, that's an easy matter to settle."

So Lewis Hopp, grip in hand and the pleasant anticipations of the trip showing in his eyes, boarded the train for New York on Saturday afternoon. Phillips saw him off, and, as the wheels began to turn slowly, said: "Good-bye. Don't forget I want to know all about it when you get back."

"I'll remember, old man. Good-bye."

The Return to Cleveland.

"Here I am again, Tom," was the greeting two weeks later, as Mr. Hopp shook hands with his clerk.

"Glad to see you back, especially because you're looking so well. You look as if you had been in the country all the time. Didn't go around so much as you expected, did you?"

"Didn't I? Well, when you've got a week or two to spare I'll tell you half of what I did and about a hundredth part of what I saw."

"Well, we're just closing for the day. You've had lunch, of course? Yes, so have I. Can't you tell me a little of what you saw now?"

"I think I had better go up to the house. Come up with me, and after I've got off some of the dust of travel I'll give you an idea of my trip. I couldn't possibly tell you all about it, but I'll do my best to show you what it is to call on the drug trade in the metropolis."

So they went to Mr. Hopp's home, and after a while, being comfortably seated and supplied with cigars, Lewis Hopp started in.

"Well, I got into New York all right after a very pleasant trip. The day was so fine and my legs had been used so little in the train that I thought I'd walk down to the Imperial. You know that hotel is not very far from the station, only down ten blocks. I went over to Fifth avenue and down 32d street to Broadway. The Imperial on the corner. They gave me a fine room, looking out on Broadway, and I was right at home in a minute. See here, Tom, when you go to New York, stop at the Imperial. You'll find it's the best hotel for men in our line there is in New York. The drug people seem to have a

fancy for the Imperial, with reason, too. Lots of men in our line go there, and when they give little dinners to men in the trade they pick out the Imperial for the place every time. Then it's so handy to the cars. The Broadway cable, of course, runs by the door. You can get downtown just as quick on the cable cars as you can on the elevated, but, of course, if you want to take the 'L' it's station is just a short block above the hotel. Then there are ten or a dozen theatres near by, and after dinner all you've got to do is to step out onto Broadway and take your pick of places of amusement.

"You have never seen the Imperial, I believe. Well, it is a nine-story hotel of handsome appearance, and is fitted up in the best of style. You would be surprised to see the stream of people going in and out of that hotel. It seems to do as large a business certainly as any other hotel in the city, and I shouldn't wonder if it does more. I hear there are few New York hostlers that are making any money, and, more than that, I understand the Imperial heads the list of those that are doing a prosperous business. It must be so, for the owners of the hotel spent \$500,000 in the purchase of what is known as the Annex Hotel Imperial, which used to be the San Carlo.

Calling on the Era.

"Wait a second until I light my cigar. I'm talking so much I can't keep it lit. Well, I'm bound to give you all the details. It was Sunday when I got to New York, and I didn't stay up very late that night, as I wanted to be up bright and early Monday morning. I had a first-class rest, and after an excellent breakfast in the hotel I took the cable cars and went down to Fulton street. Those cars run as fast as one cares to travel, and I appreciated the difference between them and the horse-cars one used to ride on down Broadway. I found the Era office open. They are located on the first floor above the street in a new building, the Downing, and they have the whole floor. Just as I told you before I went away, they were very glad to see me, as they are to see any man in the drug line. I told them what I had come on for, and they offered to detail one of their young men to go around with me. That suited me to a T. I gave them some idea of who I wanted to see particularly and what lines of goods I would like to inspect. That was all right and we started out. There are so many drug houses in that vicinity that I should have been puzzled who to see first, but my young friend solved the difficulty by going straight to the office of the New York Quinine and Chemical Works, at No. 114 William street. Looking in at the windows before we entered I saw Thomas P. Cook, the vice-president of the concern. You remember, Tom? He used to visit us quite often, and I was glad to see him in such a good place. I guess he likes staying in New York better than he did being off on the road all the time."

"Is he the same genial Tom he used to be?" queried the listener.

"Just the same. Not changed a bit. We went into the office, shook hands with Mr. Cook and also with Mr. Howard Kirkland, who had been talking with him.



LOOKING DOWN FULTON STREET.

After talking over old times a while, we were shown around the office, which has just been fixed up in good shape. Then Tom asked us if we wouldn't like to go over to the works in Williamsburg, or Brooklyn, E. D., as it is called. We, that is, Mr. Cook, the Era man and yours truly went to the Fulton street station of the 'L' road and caught a Second avenue train right away. Getting off at 3d street we went down to the ferry. It was a fine day, and I enjoyed even that little ride over to Williamsburg.

New York Quinine and Chemical Works.

"The laboratories are only a short distance from the ferry landing. They take up about three-quarters of a block, and there are altogether about a dozen buildings. Three of these are used for the manufacture of quinine, two for the making of morphine, two for acetanilid, one for cocaine, besides two or three as storehouses. In these buildings there are in the neighborhood of 150 men working. We were received by the chemist of the company, who was pleased to

show us around. First he showed us through the order department. Then we saw all the various systems of weighing, bottling and corking. An expert weigher keeps two girls working on filling the bottles all day long. This weigher becomes so expert in selecting the quantity of quinine that, when weighed, the amount he has picked up is usually found to weigh exactly an ounce. From this room we went to the morphia room, where we saw morphia cut and bottled. A curious thing about this drug here was the form in which it was handed to the weigher, being in cubes. While we were looking at the cubes I remembered that in Germany chemists are compelled by law to have sulphate of morphia in cubes so as to more readily distinguish it from other alkaloids that are not poisonous, like quinine. The New York Quinine and Chemical Works does not do this because it is compelled to, however. The company thinks it is a wise plan, and follows it. We visited some other general weighing and bottling rooms, and then went through the yard, seeing the various buildings. In

the quinine building we saw the workmen grinding and extracting the bark, passing from there into the departments where the alkaloids are separated and combined. The next place visited was the long crystallizing room, where we found much of interest. You cross a bridge from that building to the drying room. From there we passed through the morphia and acetanilid buildings, and took in the other two ranges of buildings later. In them miscellaneous goods are produced. While as a rule chemical laboratories are not handsome places to visit, nevertheless I was impressed with the general good order and neat appearance of the various rooms, showing that the entire premises are under careful surveillance, leaving no opportunity for waste or loss.

A Good Point to Remember.

"While we were in the quinine shop one of the party asked what the difference in price was between the handsome product of this company and that of German manufacturers. The reply came promptly: 'Just the same. In spite of the fact that we have no protection, we sell at exactly the same price as the Germans, thus giving Americans a chance to favor home industries.'

"On our return to the office in New York we sat down for a short talk. I happened to have seen some new apparatus being put in at the laboratory, and ventured to ask what it was for. I learned that it was to increase the capacity of certain products, and that the new building we had observed being erected was for the purpose of manufacturing a number of additional products that they proposed to add to their list in a short time. One thing I was interested in was the way in which orders are handled, so I asked Mr. Cook about that matter. He said that it is the company's aim to ship all orders on the day on which they are received. This they were enabled to do in all cases except on very large miscellaneous orders, which, of course, might take until the next day to get together. This prompt attention and immediate shipment of orders is one of such importance that no pains are spared to accomplish this point. Invoices and bills of lading go forward promptly; in fact, the whole system in the office is one that secures accuracy and dispatch in handling the business."

"Well," said Mr. Phillips, "that was an interesting trip." And he lighted another cigar.

"Are you sure you want to hear about all the places I went that day?"

"Yes; I can almost imagine myself going with you."

"All right. Here's another good trip."

Seabury & Johnson.

"When we came out of Mr. Cook's office we went down William street and crossed Maiden lane, although that was going beyond our next calling place, Seabury & Johnson's. We stopped on the southeast corner of the two thoroughfares and I remarked that a view taken there, with the northwest corner of the crossing as a centre, would take in many of the drug houses of the city. After noting the changes that have taken place in the buildings since my last visit, we went across to the Seabury Building, at 59 Maiden lane. It is a

fine structure, seven stories high. We went up one flight to the offices, where we met Treasurer G. W. Hopping and Secretary Alfred H. Mason. Mr. Seabury had gone South a few days before, seeking a few weeks' rest after much hard work, both at the office and on the Republican Committee of Thirty, of which he is a valued member. I met an old friend, too, Mr. E. A. Sayre. He has charge of the sale of the firm's products. I was anxious to go over the building, and they very promptly showed me through the various departments. On the top floor are the stock and packing departments, the sixth floor being also given up to the firm's products. From that floor we went back to the second floor and inspected the offices of the company. On one side is the treasurer's department, on the other are the desks of Mr. Mason, Mr. Sayre, the chief salesman; Mr. Benjamin, the buyer, all with their assistants close at hand. Mr. Seabury's office is between the treasurer's and secretary's. Above Mr. Seabury's desk I noticed works of art, and, prominently displayed, a picture of James G. Blaine. As becomes an authority on bass fishing, the head of the firm has fishing poles and other paraphernalia of the Waltonian sport alongside his desk.

I think you would like to show something about Mr. Mason and Mr. Hopping. They are very fine men, and I enjoyed my talk with them. Mr. Mason has been a member of the A. P. A. since 1885, of the N. W. D. A. for many years, is an F. C. S. of London and Berlin, an F. R. M. S. of London, and an honorary member of the Pharmaceutical Associations of London, Liverpool, Toronto and Quebec. He has charge of the scientific part of Seabury & Johnson's business. Mr. Hopping has been with the firm for about nine years, and was previously connected with New York city banks. A point about Mr. Hopping. His bank training makes him stick to that old-fashioned idea that a promise once made should be kept. What a pity more men don't have the same idea."

"You're right."

"Well, although we didn't have time that day to go out to the factories of Seabury & Johnson, I went later, so I might as well tell you about that trip now.

At the S. & J. Factory.

"The factory is at East Orange, and to get there you take the Watchung branch of the New York and Greenwood Lake road. The ferry is at the foot of Chambers street, so we crossed town. I wanted to mail a letter, so stopped on the way at the Postoffice. The New Yorkers say their Postoffice is a pretty poor one, but it is a good deal better than ours here in Cleveland. It's a pretty ride out to East Orange; the Oranges are famous as good places to live in. Lots of New York business men live out there. I found the Seabury & Johnson Works consisted of three buildings, two long ones, the factory proper, with detached buildings for special purposes, and a large building for a store-house.

"First we went into the plaster department, which is in charge of Seward W. Williams, F. C. S., and member of the American Chemical Society. The mass for all the plasters is prepared under Mr.

Williams' supervision so as to insure accurate medication. The first things you see when you go into the rooms are the reels of plaster ready for cutting. In the same room, which is lighted by electricity from the firm's own plant, are the mixing and rubber machinery. Down in the engine room they showed me a 300-horse-power Corliss engine, a beauty, which everybody who sees admires.

"All the firm's machinery is carefully protected by guard rails, and that, I think, is a very good plan. The chief labor inspector of New Jersey says this factory is a model one, and so quotes it to other factory owners. As soon as we got out of the engine and boiler rooms Mr. Mason showed us the stream that supplies water for the factory. Crossing a bridge we came to the coal yards, and went on to the carpenter's shop, the rooms where oiled fabrics are made, and the mustard department. We saw thousands of yards of fabric in process of manufacture. On account of the inflammable character of the material in the two buildings I last mentioned they are detached structures and great care is taken against fire.

"We next went to the building where the sulphur candles are made, also in a detached building. Hydranaphol, the ideal antiseptic, a specialty with Seabury & Johnson, was explained to us. In the antiseptic department the firm strictly enforces a very good and necessary rule. The handling of the goods is done mainly by machinery, anyhow, but if one of the girls there goes out of the room for any purpose, even to carry a message or speak to anybody, she is obliged on her return to wash her hands with antiseptic soap. The handling of cottons and gauzes by machinery, of course, leaves very little handling to be done by the help, as I said, but the firm will not run the slightest risk in the matter. The girls look very neat, all dressed in nurses' costume. We dropped into the courtplaster department for a minute. All the employees take part in a fire drill, and there are a hose carriage and a hose house on the grounds. Seabury & Johnson's factory is certainly well conducted, well arranged and a very interesting place to visit."

At the Century Inn.

"I am wondering if you had any dinners at all while you were in New York. You haven't said anything about eating, except at the Imperial," said Phillips.

"That's so. I almost forgot that, but I was really coming to it. The day we called at Seabury & Johnson's, at the office, you know, not the factory, we were invited to take dinner at the Century. That is a very old tavern at No. 122 William street. We dined at the large table out in the rear room. The restaurant is much like one of the old-fashioned houses, a large room in front, fireplaces on the left, and a smaller, cozier one in the rear. At our table were Mr. Hopping, Mr. Mason, Mr. Lynch, a lawyer who was formerly in the drug business with McKesson & Robbins, and several other gentlemen, and we had a merry time while eating a very good dinner. I found no difficulty in getting good meals while in New York.

The Mallinckrodt Co.

"From the Century we went down William street to the Mallinckrodt Chemical

Works office, at No. 90. There we saw Mr. H. T. Jarrett, manager of the New York office of one of the greatest chemical companies in the country. The company occupies three floors and a basement, and I noticed what a full line of stock there was on hand. Mr. Jarrett told me that the company has twelve acres of ground over in Jersey City, and in the buildings there are made strychnine, mercurials, chloride of potash, granular, and many other products which can be more profitably made there than in the West. I was surprised at this, you can imagine, as I thought all the company's products were made in St. Louis. The works in Jersey are those of the old Charles T. White Company, which was a well-known house. Mr. Jarrett told me the company has been steadily growing, and that business so far this year, notwithstanding the general depression, has been better than ever before.

"Some of the special lines of goods which I saw at this office were their chemically pure acetic acid, carbolic acid crystals, pure granulated ammonium muriate, ammonium bromide, subnitrate of bismuth, crystals of eucaine, hydrochlorate, sulphuric ether, lodoforn crystals, and much more. Here's one of their price lists.

Sharp & Dohme.

"After spending a very pleasant quarter of an hour with Mr. Jarrett we walked up William street, and on my suggestion turned up John street, as I particularly wanted to call at the office of Sharp & Dohme. You know all about their pepsin products, but I had some questions to ask about their 1 to 10000 pepsin, and also wanted to see a friend in the office. Dr. Seem was at his desk, and he gave us an old-fashioned welcome. He showed us some of the pepsin I spoke about, and also some of the regular standard Webber-pepsin, 1 to 6000. The 1 to 10000 is the nearest approach to the ideal pepsin ever made, the purest and best to be obtained. Ergotole, the liquid preparation, two and one-half times the strength of the fluid extract, was also shown us. I think you saw the firm's display at the World's Fair. Well, they have part of it at the office, together with the three official ribbons, or prizes, awarded by the commissioners. Sharp & Dohme had eleven diplomas given them for their show and two medals besides.

"I was asked if I couldn't go down to Baltimore before my return home, but you know that I didn't have time to go hardly anywhere except in the city and a few places near by. I should have enjoyed a visit to Baltimore, especially as I was a classmate of Mr. Webber, who is in the company's laboratories. Dr. Seem told me something about the Baltimore laboratories, however. They are near the Baltimore and Ohio station in that city, and the buildings are six and seven stories high. They have more floor space, probably, than any other company in this country.

"I was introduced to Mr. E. Stoffregen, the general business manager of the company, a very genial and well-known man in the trade. We were shown through the office and saw their full lines of stock. I could have spent a much longer time at Sharp & Dohme's office, as they are very 'new' people, and had much of interest to show me."

"Where did you go next?" queried Mr. Phillips.

At W. H. Schieffelin & Co.'s.

"W. H. Schieffelin & Co.'s was our next calling place. It was getting late in the afternoon and we had to hurry. The Era man knew Mr. Mersereau, and we found him at his desk. What a busy place Schieffelin's is! It seemed like imposing on people to call when they were up to their necks in work, but our reception was very pleasant. One point of special interest that Mr. Mersereau spoke about was that this is the firm's 100th year of business. You could talk about this firm for hours and still leave many things unsaid that would be interesting.

"We were taken through the building, which is at the corner of William and Reekman streets, and on every one of the six stories, as well as in basement and subcellar, we found the same evidences of order and intelligent work. You know all about their products and the class of goods for which they are sole agents in this country, more especially those of the Farbenfabriken vorm Friedr Bayer & Co., of Elberfeld, Germany. There are sulfonal-Bayer, somatose, aristol, phenacetin-Bayer, piprazine-Bayer, and I don't know how many more. W. H. Schieffelin & Co.'s own products, among them soluble pills and granules, have a very wide sale, not only in this country, but in England and South America. They have a very large number of clerks. I should think they would need them. Their correspondence must take tons of paper every year. Mr. Mersereau said that the firm was now moving its laboratories from Front street up in the vicinity of 1321 street, where a large factory will be fitted with the latest improved apparatus."

One Dinner Recalls Another.

It was now dinner time, and the returned traveler and his friend stopped the talk about the New York trip until they had eaten a hearty meal, during which Mr. Hopp took occasion to tell his friend something about the dinners he had been invited to while in the metropolis. One in particular was that partaken by invitation of Mr. Thomas F. Main of Tarrant & Co. One feature of that pleasant little affair was a very fine sirloin of beef, done to a turn, and brought on with an appetizing concoction of rice, mushrooms and red peppers. After dinner Mr. Hopp thought his friend might wait until the next day for another installment of the story of the trip, but Mr. Phillips was anxious to hear more, so they returned to Mr. Hopp's room and the story was resumed.

"I was pretty tired that night, so after I had had dinner at the Imperial I concluded not to go out, but to stay in the hotel and write some letters. I went to the writing room, expecting to do about an hour's work on my mail, but some of those beautiful pictures that adorn the walls of the house so attracted my attention that I completely gave up the idea of writing. I went from one painting to another until I had seen about all of them and when I got through I felt satisfied that I had spent my time well, especially as I had no pressing business to write about.

"When I got up the next morning I was prepared for another day's journey among the drug firms. I met my companion of

the previous day at the Era office, and while he finished some little work he had on hand I had a chat with the editor of the Shipping and Commercial List.

The Tilden Company.

"Our first call that morning was at the office of the Tilden Company, at 41 John street. Mr. Otway Latham, manager of the company, received us. He is a young man of wide experience, having been for some years in the pharmaceutical line. The Tilden Company is the originator of the fluid extract business, and the first to put gelatine-covered pills on the market. The company organized in 1848. Under the energetic management of Samuel J. Tilden, Jr., the business has greatly increased, although during nine years, from 1881 to 1893, lack of energy had kept it out of touch with the trade. The New York office is a branch of the big concern at New Lebanon N. Y. I had heard a good deal of Mr. J. H. Cox, the secretary and treasurer of the company, and wish I could have seen him, but he is located at New Lebanon. He is a very affable, energetic man—a pusher from Pushville. Why, that company has more business now than it can attend to, but with increased facilities they hope to get up with their orders soon."

"That Samuel J. Tilden, Jr., is the nephew of Samuel J. Tilden, the Sage of Greystone?" asked Mr. Phillips.

"Yes," was the answer.

Tarrant & Co.

"From the Tilden Company's office," resumed Mr. Hopp, "we went to Tarrant & Co.'s, at the corner of Warren and Greenwich streets. Wishing to show me some of the newspaper offices, the Era man went a little out of the way, and as we stood on the corner of Mall street and Park row he pointed out the homes of the daily press, some of which are in buildings erected since my last visit. Two buildings that took my eye are those of the Home Insurance Company and the Postal Telegraph Company, on the other side of City Hall Park, or, rather, on Broadway, opposite the Park. Then we walked up Mall street—by the way, that street is a disgrace to New York. What with dirt and stones, wagons, horses, oat-bstrewn pavements, it's a wonder the Postoffice people don't complain. We saw the statue of Nathan Hale, who was hanged by the British in what is now City Hall Park. That's an odd idea for a statue, a man ready for hanging, with his arms pinioned behind him. Tarrant's people were pretty busy when we got there. I saw Mr. T. F. Main first. He is the chairman of the drug section of the Board of Trade, too. I found an old friend, Mr. S. W. Lathrop, who is in the sundries department, and he showed me all the fine things in that line. Mr. George E. Evans is at the head of the department. I saw that showcase of Hinds, Ltd., which the Era had quite an article about the other day. It is now filled with the latest consignment, or part of it, that Hinds sent over from England the other day. Tarrant's has L. Dehamm's line of tooth brushes, very fine articles, indeed, and I saw some of their best articles in this line. Fancy atomizers is a special line with the company also, but you know they have all

sorts of druggists' sundries, and all of the best. They have many hundred cases of the finest sponges. Did you know that the demand for sponges in certain sizes is more than the supply, and that's what makes the prices go up? Tarrant's perfumes are very fine, and I had a good chance to examine their stock. A particular push is made on the 'Modesty' special, a very excellent perfume.

"Speaking about perfumes reminds me of a statement made by Mr. Main. He said that Tarrant never puts out on the market any specialty unless the firm found it to be the equal of anything in the same line made by other firms. They showed me some bottles of their own make of perfume, gotten up in a style fully equal to the best French articles. We sampled some of their fruit syrups, and found them excellent. There isn't anything about Tarrant's Aperient that I can say that will be new to you. It stands for itself. We then went to that little dinner I spoke about when we were downstairs.

"On our return we were shown through the firm's admirably arranged building. One stockroom is just like another, of course, so you won't expect me to tell you about Tarrant's. But down in the basement we saw the workmen bottling Leopold Hoff's Malt Extract, for which the firm is the sole agent in the United States. The machinery is run by electricity. We noticed the neatness with which all the floors are kept, and the engine room was no exception.

"From Tarrant's we made a long jump to H. N. Fraser's drug store, on Fifth avenue, No. 262, I think it is. We took the Ninth avenue "L" road, which has a station right at Tarrant's. My Era guide told me we would be not over twelve minutes getting up to 23d street. We got there in just eight minutes. We took a surface car across town to Fifth avenue. Just as we were about to get off we saw Lillian Russell, bank-book in hand, come out of the ladies' entrance of the Fifth Avenue Bank. She is playing in "Girode-Girofa" at the Casino. I went there one evening and enjoyed the play very much. But to return to our visit to Fraser's.

Fraser & Co.'s Retail Store.

"The retail store of Fraser & Co. at 262 Fifth avenue is one of the oddest things connected with the drug business in New York. Perhaps 'odd' isn't just the adjective to use in describing such an establishment, but it is so unlike any other drug store anywhere that you would naturally apply that word. Fraser & Co. have been in business about twelve years—always on Fifth avenue—having, until a year ago, occupied the basement at No. 208. Now they have a five-story and basement building, 20x100 feet. Fraser & Co. have always styled themselves apothecaries, and from the day he started Mr. Fraser (who, by the way, hasn't had a partner in the retail business for some years) has aimed to run an apothecary shop simply as such. He has never had a soda fountain; never sold cigars, tooth brushes, candy, stationery, or even toilet preparations or patent medicines. Of the latter he keeps only such as are called for on prescription, and he informed me that they did not constitute one per cent.

of his sales. This would strike you and me as 'odd,' but it isn't what I particularly had in mind when I used that word.

"In the first place the arrangement of the ground floor is different from anything you ever saw in a drug store before. The fixtures are all of oak, severely plain, but of a quality in keeping with the swellest store on the swellest avenue in New York. About twenty-five feet of the front is occupied on one side by the desks of the manager and the cashier and chairs for customers. There is a handsome rug in the centre of the space, and on this a table, but whether the table was used for the familiar city directory or some other class of literature I didn't notice. Back of this space the walls are lined with shelving, the upper tiers of which are reached by railway ladders, everything

of the stocks of the various makes of pills and similar preparations within easy reach of the prescription clerks are unique, but would probably be appreciated on sight by most drug clerks. In this part of the store also is a very complete stock of the tablet tritirates and compound tablets with which the name of the house is generally associated, but I did not find tablets dominating the business to the extent I had expected from this association. They constitute an important feature of the stock, but are there simply as one form of pharmaceutical product called for by physicians either on personal order or prescriptions.

"Mr. Fraser was the first maker of the tablet tritirates, and he and his concerns may be said to have created the tablet business, but the manufacture of Fraser's Tablets some years ago outgrew



FROM A CORNER OF WILLIAM STREET AND MAIDEN LANE.

being of the same plain but highly polished oak. Across the room are several showcases, reaching to the floor, which are filled with sick-room appliances, while the shelving is largely given over to strictly pharmaceutical preparations, such as are mostly sold in original packages. A large share on one side is, however, given up to prescription books from the beginning of the business, the formidable appearance of which attracts the eye of the customer, for everything in the store, including the preparation of prescriptions, is in plain sight of everybody in it. About midway of the room on one side is a passenger elevator, and in the centre the desks of the checking clerk and a typewriter. Back of this, and running lengthwise, is the prescription counter, with working space for five clerks on each side, and a complete stock of dispensing chemicals and appliances for each clerk. The arrangements for conveniently carrying

the confines of a retail store, and was made a distinct business, being conducted by a corporation, of which Mr. Fraser and Mr. Peters are the owners, and which gives employment to over one hundred persons, its factory being located downtown, near the bridge.

"The relation which this retail store bears to the Fraser tablets, therefore, appears to be that which any other retail store, equally appreciating their value, might bear to them—namely, that of a distributor. Mr. Fraser, while recognizing great value in these adjuncts to his retail business, believes that they would be equally valuable to any other retail establishment. In other words, he believes, and bases his belief on facts shown by the success of other stores which have carried full stocks of these goods, that it is the fact that this particular store carries a full line of Fraser's tablets, and not because it happens to be Fraser's

store carrying Fraser's tablets, that brings into the large prescription trade for these preparations. Thus their influence upon his business as an apothecary he believes to be a complete refutation of the theory that the sale of tablets as instituted by the Tablet Company, and imitated more or less openly and energetically by other pharmaceutical manufacturers, is necessarily inimical to the best interests of the retail druggist.

"But to continue with a description of the store. A space of about twenty-five feet at the front of the second floor is called off for use as an office and library, and the bookcases on either side, extending to the ceiling, contain over 2,000 volumes, constituting what is said to be one of the most complete medical and pharmaceutical libraries in New York, all of which is very convenient for physicians and is made good use of by them. The rear of this floor is occupied by the book-keeping department, and the intermediate space is given up to medical and surgical supplies of one sort and another. Very few, if any, surgical instruments are carried, but there is a large assortment of sick-room accessories which it would be difficult to find anywhere else in this country.

"The third floor is for the storage of heavy goods, such as are not carried in the basement or cellar, and the fourth floor is the analytical laboratory and microscopical room. This store makes a specialty of analyses for physicians, as well as for the public, and also, I found, does a good deal of work for doctors and druggists in other parts of the country, who send in for analysis or microscopical examination samples of all sorts of things related to health and sanitation. The laboratory is a model in its way, and contains the most complete microscope in America, and it all adds to the oddity to think that it is simply an adjunct to an apothecary shop.

"The fifth floor is furnished with the ordinary appliances for such manufacturing as is necessary for a retail store of this character, containing steam evaporators, stills and drying closets, percolators and so on.

"Does this all pay? you ask. Undoubtedly it does, but whether the experiment which Mr. Fraser has successfully made would succeed somewhere else is yet to be determined. However, any druggist can learn something of value by a visit to this store, and if he gets as cordial a reception as I did he won't regret the call."

John Matthews Apparatus Company.

"After leaving Fraser's it was a question whether we should keep on visiting some of the retail stores or go over to the offices and factory of the John Matthews Apparatus Company, at First avenue and 26th street. We concluded that it would be better to visit the Matthews company first, so we walked down 26th street, past the Madison Square Garden, and on over to First avenue. As we entered the office of the company, which is just across the avenue from Bellevue Hospital, we met Mr. John Doherty, the assistant manager, and had quite a chat with him. The John Matthews Apparatus Company has a very large building, with five floors, but is of irregular shape, several buildings having

been thrown into one as the company needed more room. The original factory was on the same site and was established in 1832. The showroom for apparatus, the marble ones being especially noticeable, is a very large place, and we were shown through it by Mr. Doherty. The firm imports many varieties of marble from France, Italy and Belgium, and also uses a great quantity of onyx from Mexico. Mr. Doherty told me that the use of Mexican onyx for fountains is becoming more and more common. In fact, there is quite a rage for it, so to speak. The firm's Climax system for storing syrups in removable glass jars with a measuring chamber for the syrup, which is emptied at one stroke by a very easily worked and simple device, is claimed by the firm to be the cleanest, most rapid and most practical method for storing and dispensing syrups. The company does a very large business in bottling machinery. They have a new system, which is being adopted to a great extent in other large establishments, and Mr. Doherty showed us the machinery; department in order that we might get some idea of the work.

"It is through Matthews' new system of carbonating machinery that druggists are enabled to have their steel fountains charged to their full capacity, instead of only two-thirds capacity, as heretofore. I think it would be a good thing if out-of-town druggists would call at the Matthews company's office when they visit New York, for there is enough of interest to make such a call worth while. Before we went out I was introduced to Mr. L. F. North, the business manager; Mr. T. N. Seymour, chief salesman; Mr. John Ormrod, superintendent of the factory, and several other gentlemen.

Seclog Two Retail Stores.

"After leaving the Matthews company's office we followed our programme of visiting some of the uptown retail stores. We only made short stays at them, as we wanted to call at the offices of the Bovinine Company on South Fifth avenue and the India Rubber Comb Company on Mercer street. Our first call was at Hudnut's. A few years ago Mr. Hudnut had a drug store in the Herald office, at the corner of Broadway and Ann street. It became a popular resort for newspaper men, and was soon well known, by name at least, in many parts of the country. Now Mr. Hudnut's, at 25 Broadway, is as well patronized by ladies as it used to be by men. The soda water draws them all the year around. The promenade up and down Broadway at this point seems to pass into the store, halting at the counter for ice-cream soda, and out again down the broad sidewalks. Hudnut makes a specialty of displaying toilet articles, perfumery, etc., and his store always looks very inviting.

"Being pressed for time I advised taking a cable car down to J. N. Hegeman & Co.'s store at 70 Broadway. Perhaps you think I was foolish to want to ride from 25 to 70, but the distance is considerable. Union square comes in between those numbers, and it would really have been quite a walk. My companion agreed with me, so we rode down Broadway, commenting on the various points of interest as we passed. We got off at Hegeman's and

went in to shake hands with the proprietor, but he was out. However, we looked over the store. Mr. Hegeman has another drug store further up Broadway, and I had one on 29th street. A fire recently burned out or caused the closing of the 50th street store, but Mr. Hegeman will soon have it opened again."

"I remember reading something about that fire," broke in Mr. Phillips.

"Yes, and it was particularly unfortunate because it came at just the season of the year when the store would have done a great deal of business. Was the Summer opens, or rather, just as soon as the weather becomes mild, the people begin flocking to Central Park, and thousands go right past that store. Some New York druggists thought that the store was rather out of the way, but they are mistaken."

"Did you do much more visiting that day?" asked Mr. Phillips.

"We went to the two places I mentioned and that closed our day's tour. I'll tell you about them, and then I think we'll adjourn this sort of one-sided meeting until to-morrow."

"All right. Come and take dinner with me, and I will be glad to hear about some of your other trips."

The Bovinine Company.

"Well, to finish up that second day's calls. Let me see. I was talking about Mr. Hegeman's store, I think. From there we went down Broadway to Bleecker street, intending to visit whichever came first, 65 South Fifth avenue, or 9 Mercer street. We naturally supposed they would be near each other. Thinking it best to inquire first, we found that while the numbers on South Fifth avenue began at Washington square, the numbers on Mercer street began at Canal street, and were highest at Washington square. Walking was by this time become pretty tiresome, but we managed to stand it. At the Bovinine Company's office we found Dr. H. T. Champney.

"He told us about how he first began to introduce that article to the trade. It seems that he bought the formula from Dr. J. P. Bush of Boston. He tried for a long time to get some moneyed men interested in the matter, but they fought shy of it. Finally a factory was started. It was, of course, on a small scale, but in 1855 there came, unexpectedly, a great advertisement for the extract. Gen. Grant was then stricken with what proved to be his fatal illness. The condition of his throat prevented him from taking solids, and Dr. Douglass was induced to adopt Bovinine. Had the distinguished sufferer never taken Bovinine, it is probable he could not have lived to write his 'Personal Memoirs.' When the public found this out—and good care was taken that it should do so early—the demand for the extract grew to grand proportions. 'The physicians of the country found out that Bovinine was just what they wanted,' said the doctor to me, 'and they lost no time in recommending it.' The company moved its whole plant, with the exception of its laboratory for compounding the extract, from Chicago to New York, in June, 1882. The reason for this was because the concern believed, and still thinks, that New York offers better facilities for business, and is really the



THE NEW YORK POSTOFFICE BUILDING.

headquarters for proprietary articles in this country.

"I knew the Bovinine Co. had foreign agents, but I did not know that it has had a plant in England for five years, in France for four years, and has one now in Norway that has been in operation for six months. The house had preserved a conservative policy, and has met with great success. We found the doctor a very agreeable gentleman, and a fluent conversationalist. But we had to hurry away, much as we would have liked to stay and chat with him longer.

The India Rubber Comb Co.

"The India Rubber Comb Co., at No. 5 Mercer street, was not far away. We called for President F. Achelis, and were lucky enough to catch him in, although it was after 5 o'clock, and rather late for calls. He told us that the one special thing his company strived for was to turn out the very best articles in their line that were ever put on the market. The concern makes no cheap things, does not believe the public is best served by the sale of cheap articles. They had, when the patents were in existence, the patents for the Goodyear hard rubber patterns. Mr. Achelis said to me: 'We are proud of our reputation, and we will not make anything but what is good.' As I came from the West, he said that the people out there should change their ways a little, and not buy the cheap goods. Firms that deal in the poorer class of articles simply

because they are cheaper should educate the people up to the idea that the best is the only kind of rubber goods it is wise to purchase. The company's trade mark appears on almost every article it turns out, and the stamp is 'The I. R. Comb Co., Goodyear, 1851.' Mr. Achelis showed us a big line of samples of unbreakable combs, fancy atomizers, water bags, syringes, and also many kinds of goods outside of the druggists' sundries line.

"That was our last call for the day, and I think both my companion and I were glad to be able to sit down for a rest. I slept like a top that night. However—and I almost forgot it—I went to the Madison Square Garden Theatre; see '1492' and the living pictures that evening, and enjoyed the show first rate."

As Mr. Phillips bade Mr. Hopp good-night, he said: "I hope I am not imposing on your nature, Lewis. I have enjoyed your story very much. Don't forget to dine with me to-morrow and tell me some more."

Mr. Hopp did dine with Mr. Phillips the next day, and also pleased his host by resuming the story of his jaunt through the drug trade of New York. He began it with a slight reference to the fact that while in the metropolis he had actually done more walking than he did in two months in Cleveland. He thought it had done him good. Resuming his narrative, he said:

College of Pharmacy.

"The next morning before going to the Era office I called on Dr. Coblentz, at the College of Pharmacy, on 23d street. He took me over to the new college building, on West 68th street, near the Boulevard. The Sixth or Ninth avenue elevated road carries one very near the college, so the students will find it easy to get to their new quarters. From the Professor and from others of the faculty I learned that this college is making great efforts to give the students practical instructions in all branches. Then their laboratory fittings are the very best for practical work that this country can produce. The college is now in possession of the Canby Herbarium, worth \$25,000. Part of the money with which this herbarium was purchased was subscribed by friends of the college, and the rest was furnished by the college.

"Perhaps you would like to hear something about this new building. We started at the basement and went up through the building. In the basement there are the usual heating and ventilating apparatus, the gymnasium, toilet rooms and large storerooms for college supplies. On the first floor are the office of the college, the library, meeting rooms for members and trustees, and a special room for the comfort of lady students, of which the college has a number every year. The herbarium to which I referred is also to be located on this floor.

"On the second and third floors are lecture and 'quiz' rooms. The lecture room is particularly fine, and I spent considerable time examining all its features. Every student—and 500 can be accommodated—has an unobstructed view of the lecture table, and every seat is an independent and comfortable armchair, with an extension on the right arm so that the boys can take notes easily. On the fourth floor is the department of botany and materia medica. There are a museum of materia medica, a microscopical laboratory for 100 students working at microscopes together, and also special rooms for the accommodation of the professor of the department and his assistants. 'Quiz' rooms take up part of the fourth floor.

"On the fifth floor is located the pharmaceutical laboratory, which will accommodate 450 students, 150 working simultaneously, each student having his own closet and drawer for apparatus. There is probably no laboratory in the world so well fitted for the instruction of students in practical pharmacy. The floors are asphalt, perfectly water-tight, and the drainage has been designed with special reference to pharmaceutical manipulations, on a practical scale. The heating and ventilation of this laboratory have been thoroughly studied and arranged for. On this floor also are the supply room for the laboratory, a scale room and accommodations for the director and his assistants.

"On the sixth floor is located the chemical laboratory, with accommodations for 450 students, or 150 working at one time. Like the pharmaceutical laboratory, the floors are asphalt and water-tight. I noticed the ventilation of this room has been well provided for, with high side windows and two large skylights. On this floor there are a stock room for supplies,



NEW BUILDING OF THE COLLEGE OF PHARMACY.

a scale room and accommodations for the director and his assistants. All the laboratories have been specially arranged to give the students practical instruction, by making them work with their instructors and at the same moment. I think the College of Pharmacy of the City of New York is the best equipped institution of the kind in the world. The college claims that it is without a rival anywhere, either in its faculty, its methods or its accommodations."

"How about rates?" asked Mr. Phillips.

"Extremely low, I heard it said, I didn't ask for figures."

Fairchild Bros. & Foster.

"One of the most pleasant calls of the week was that at the office of Fairchild Bros. & Foster, at 82 Fulton street. The click of the typewriter and the general air of business activity in the office indicated plainly that there was no great depression in the branch of business to which this firm devote themselves. Mr. S. W. Fairchild, who presides over the

business affairs, told me that they had little to complain of—that business was good. In fact, they had only recently been obliged to extend their facilities in several directions; in special machinery, new vacuum pans, more room for manufacturing and cold storage, etc. For points about the digestive ferments he referred me to Mr. B. T. Fairchild. I found him full of enthusiasm in his interest in this field of work. A short talk with him made it plain to me that however much the pepsin business is worked, the day of digestive ferments is by no means done, and I went away with the conviction that the scope of the digestive ferments is being constantly developed, and their value growing in appreciation.

"Naturally, their new predigest food, Panopticon, is uppermost in their minds just now, and from what Mr. B. T. Fairchild explained about the process and showed of the process in the various stages of manufacture, it is a real novelty in the way of peptones, and is meeting with a

large demand. Other interesting products were shown and ideas spoken of, but I must not talk out of school. We may look, I think, for more Fairchild products in the future. An interview with these people concerning the specialty in which they are interested makes it easy to understand why they are so often spoken of as 'head-quarters on digestive ferments.'

"'Pharmaceutical chemistry,' said Mr. B. T. Fairchild, 'takes a leading place in the study and practice of medicine, and the more the importance of diet and nutrition is revealed in the cure and prevention of disease, the more the use of the digestive ferments and of peptonized foods.'

"In the manufacturing department, busy among the filtering presses in the drying room, etc., I found Mr. Foster, where his natural tastes and bent are congenially employed, and make him 'the right man in the right place.' Fairchild Bros. & Foster's offices show that this firm believes in the gospel of exercise and fresh air. The walls show game trophies from every section of the country and foreign parts, from Dakota and Maine to Florida. The brothers get much amusement out of their rivalry as sportsmen. If one shows a fine buck's head, the other turns your attention to a peculiarly marked pheasant or specimen of grouse or wild turkey. Whenever possible, in the shooting and fishing season, they take a few days out of doors. They say they have to work harder to make up for it, but believe it a paying investment. Mr. Foster's hobby outside of his business, is made evident in the picture of his yacht, a Burgess forty-footer, with Mr. Foster out in the rigging 'bearing a hand.' This is suggestive of the sort of yachtsman Mr. Foster is, for he has worked his way up from the racing shell canoe and catboat to be the efficient commander, and, if need be, the practical sailing master, of a fine cruising yacht, and he takes great pleasure in handling the Lotawana in all weathers. When in commission she is kept within handy distance of the city, or near his own home on the Hudson.

"Every one knows what an active interest these people take in everything that concerns the drug business."

"Where did you go next?" asked the ever-interested clerk.

Merck & Co.

"Merck & Co., 71 and 73 William street, was our next call. There I was introduced to Mr. Theodore Weicker, a member of the firm and business manager of the company.

"What a growth that house has had!" said Mr. Phillips.

"Indeed it has. That was my first thought when I entered the building. You undoubtedly remember when Merck & Co.

established their house here. It was in 1887, although for years the foreign house had been doing some business in this country. Perhaps you don't know that when this New York house was established it was merely with the idea of facilitating the distribution of the firm's goods in this country. What a help this house of Merck & Co. has been to the jobbing houses as well as the pharmacists of this country! All over the country, no matter where you go. If you ask for certain goods, and you are told they have Merck's,

you have no need of asking further questions. The reputation of the house is unexcelled."

"I understand," said Mr. Phillips, "that when a man in our line wants information about new preparations or on some scientific point in connection with drugs he can send to Merck & Co. and they will answer him. Is that so?"

"That is quite right. Merck & Co. have from the very first been most enterprising, and that is one of the best examples of their helping the trade. They established a scientific department, and placed it at the disposal of their scientific and trade friends. A large force of intelligent men are employed for just that purpose. Now if I want any information on a scientific point all I have to do is to write to the firm and the reply will be pre-eminently satisfactory. Whether the questions are on pharmaceutical or therapeutical points, or as to the modes of administration of doses, they will all be answered. The sources of the house's information have been kept just as complete as possible. The Darmstadt house of the firm has the same excellent feature."

"Another point about Merck & Co., one for which it is also noted, is the reliability of its label. Another feature is that the house not only refuses on principle to handle inferior goods, but has done more than any other house in fighting commercial and other evils that the trade has to contend with. The abuse of names on labels has been practiced by some firms for years. Merck & Co. have always taken a firm stand on this matter, and have fought against any misrepresentation on labels. The firm was instrumental in correcting the common error of selling caffeine alkaloid under the label of caffeine citrate, for example. Further, it has always been prompt in drawing attention to the misuses of chemicals in medical practice. For instance, when it became the general practice to use salicylate of bismuth, 40 per cent., the acid kind, the house showed that the basic preparation containing 64 per cent. of bismuth oxide was the kind for medical use. In this way the house has rendered great service to the medical world. At present Merck & Co. are engaged in the coal tar-creosote fight. It believes that great harm is being done by the substitution of that article for beechwood creosote, which it thinks is the only kind that should be used in medical practice."

"Now, you must not think Mr. Weicker laid great stress on these points. I have put his chat into my own words. He simply wished to show the constant endeavor of the house to serve the pharmaceutical and medical professions. Mr. Weicker thought these professions had a right to expect such help. As he said of Merck & Co.: 'We want to do more than make a sale. We want to know that the proper article is furnished.'"

"Did you go through the office?" asked the listener.

"We did, after we were introduced to Mr. George Merck. He is the son of the head of the Darmstadt house, and has been in this country for about three years. About the office there are a few interesting things I can tell you. The most per-

fect organization exists in securing prompt dispatch and correct execution of all orders. The correspondence department is so conducted that all its work is done without delay. Six typewriters are kept busy all the time. I was very much interested in their system of stock bookkeeping, which has attracted a good deal of attention from other houses. By this system the firm is enabled at any time to state how much of any kind over 5,000 different chemicals and drugs now carried at the New York warehouse the firm has on hand, and at the same time in what subdivisions. That perfection enables the firm not only to keep stock always in the most satisfactory shape, up to requirements, and to avoid overstocking, but it also acts as a guard against possible irregularity, and keeps everything under proper control."

"Things are run systematically there."

"Yes. As I went out Mr. Weicker said: 'Mr. Hopp, we want all the druggists to know that Merck's goods can be obtained now at just the same prices as they would have to pay for any other label.'"

McKesson & Robbins.

"We had tried to so time our call that when we got around to McKesson & Robbins we should be able to talk to Mr. John McKesson and others without fear of taking them away from urgent business, but I think we should still be waiting if we had pursued that policy. You have no idea, when you stand outside of 91 Fulton street, how vast is their floor space and what an army of busy people there is inside those walls. When we entered we were seen by Mr. John McKesson, who came forward and welcomed us in his kindest manner. He showed us all over the office, and gave me quite a history of the house and of its home in Fulton street."

"To keep pace with the progress of trade and meet the requirements of an increasing business the firm built in 1855 this large warehouse between William and Gold streets. It was 50x120 feet, five stories in front on Fulton street, and six stories in the rear on Ann street, with basement, sub-cellar and vaults, making a total of nearly 50,000 square feet of floor room. The growing necessities of business and the increase in the manufacturing portion, induced them in 1879 to build adjoining and north of their old premises an edifice 50 feet front on Fulton street, extending 120 feet to Ann street, doubling their former space. In addition, they occupy an entire building and rent several lofts and cellars on the opposite side of Ann street, for boilers and engines and printing presses and for storage purposes. We went down into the sub-cellar of 91 and 93 Fulton street. It is devoted to storage. The basement is entirely occupied by the bottling department in the execution of jobbing orders for broken packages of essential oils, other liquid drugs and chemicals. The first floor of 91 and 93 Fulton street is taken up for office purposes and salesmen's desks, the bookkeeping department being on the second story back. The principal portion of the second story of all the buildings fronting on Fulton street is adapted for the exhibition of a complete assortment of druggists' sundries, druggists' fancy goods and all articles and appliances pertaining to the

business of the apothecary and druggist which require display and examination. The other floors are arranged appropriately for the packing and execution of orders, manufacturing of pharmaceutical preparations, soda water requisites, display of sponges and chamolis, which form a distinct and important department; cutting corks and manufacturing perfumes and toilet cases. The export department occupies considerable space, to meet the demands of a constantly increasing business with Central and South America, the West Indies, England, Germany, Japan and other foreign countries. They do a big trade with those places.

"We saw in one room a sponge man, all except the hair being made of sponge, and that I thought was Irish moss. At any rate, I said so, and Mr. McKesson smiled. After going around the office I had a long chat with Mr. McKesson. He said he was getting up a table showing the course of bark and quinine importations in this country for a number of years past, and other facts in regard to duties, etc. Most men have their hobbies. Mr. McKesson's hobby is the drug business. He has traveled abroad in the interest of that trade, and is quite familiar with the places of interest in Constantinople, Smyrna, Greece and most of the larger European cities. But he thinks 91 Fulton street is the most interesting place in the world."

"While at McKesson & Robbins we met Mr. W. H. Wicknam, Mr. John Oehler, Mr. Howard Kirkland and many other gentlemen connected with the firm. We had just time to shake hands with Mr. Sherwood of the sundries department. He was to sail for Europe in half an hour, so he hardly had time to say 'How d'y e do?' before he was obliged to rush out."

Lehn & Fink.

"One of our calls that day, although perhaps not the next in order, was at Lehn & Fink's, 128 William street. I know Mr. Fink and also Mr. Plaut, the junior member of the firm. Mr. Plaut was away, and so I did not have the pleasure of seeing him. As we crowded our chairs up close to Mr. Fink's he said he was sorry he could not give us more room. The trouble was that the business of the firm had grown so that there was not enough room to swing a cat in, if one desired to do such an unseemly thing, but he was thinking of extending the building in the rear, so as to get a good-sized private office. In the little office there are at present twenty-six persons working as busy as bees all day long."

"The distinguishing feature about the business of this firm is that they are druggists. Nine-tenths of the building is occupied by the drug business pure and simple. Very little room is occupied by patent medicines. There are practically no side issues, and the firm carries the finest possible selection of botanical drugs, both foreign and domestic."

"I was told that an exhibit of 553 specimens of drugs in glass tubes that the firm had at the World's Fair has been presented to the Chicago College of Pharmacy. This collection embraces all the plants and exudations official in the Pharmacopoeias of the United States, Germany, France, Great Britain and Scandinavian countries."

The firm has at present an exhibit at the Midwinter Fair in California.

"Perhaps you do not know that the firm of Lehn & Fink is regarded as an authority on new remedies and botanical drugs. It has been the leading house in the new remedy field since it was established, twenty years ago. The firm had the first ounce of salicylic acid that came to this country. From the founding of the house to the present day it has been identified with the progress of pharmacy, and it has done much work gratis for the benefit of education.

"In order to be able to tell you something about the firm's business I verified by inquiry some points I was partially posted on. They have a very fine laboratory at 33 Gold street. It is now in its fourth year, and is in charge of a graduate of the Wisconsin College of Pharmacy. It is, of course, fully equipped with the most modern apparatus and machinery. They have large storage rooms for botanical drugs at 80 Pearl street.

"There is another matter about this firm that I would like to tell you. I secured many pointers from them where I could find firms that dealt in certain things that I wanted. Lehn & Fink are very good about furnishing such information to their customers, and often do the same for people that are not customers of theirs. They are a sort of New York directory.

"Lehn & Fink have twenty-two salesmen on the road. Eleven of these are in New York city and its suburbs. The local men go as far as Poughkeepsie. One of their best men is now in Mexico and Central America. When I went out I saw a number of boxes marked ready for shipment to Champerico, Guatemala, a new port. I was also told that last week the firm sent several loads of drugs to Guaymas, Mexico. Fanny, isn't it, why those people use so many drugs?

"Although I meant to ask some questions about the matter of publications in which the firm is interested, I forgot to that time, but I was in there again the next day and made inquiries. For one thing, they publish notes of everything that is new in the remedy line. Their 'Notes on New Remedies' is now in its sixth year, and is looked upon as an authority in this special branch of materia medica. The firm also publishes Halstead's 'Modern Materia Medica,' the only standard reference book on new remedies in the United States. This book has had an immense sale."

"I should think that the firm had plenty of business on its hands," said Mr. Phillips.

"No doubt of it," was the reply.

Stallman & Fulton.

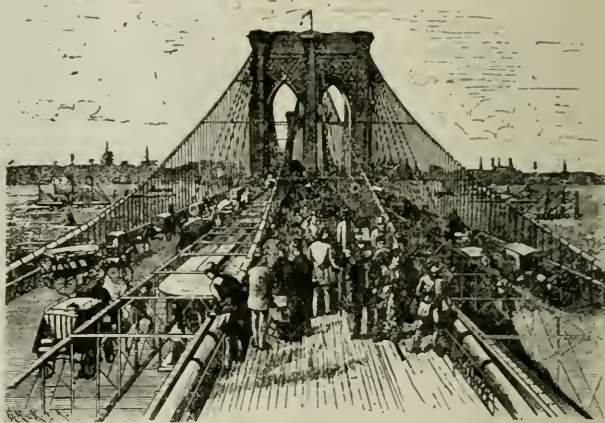
"As we proceeded on our way from Lehn & Fink's to the office of Stallman & Fulton, at 10 Gold street, I expressed a desire to go up to Central Park some day if I could get my young friend from the Era to go with me. He said he thought we could go some day early in the morning, and so we arranged a little excursion quite outside of the drug line for the next day. On reaching the office of Stallman & Fulton we went directly into the office of Mr. John Fulton, Jr., who was very glad to see us, and took us through the

building. Before we went upstairs Mr. Fulton told us something about the insect powder business, in which the firm is a leader in this country. He said that the general trade seemed to be ignorant of the fact that the adulteration of insect powder is now going on in this country to a great extent. The firm was the pioneer in the country in the uncolored powder business, having been the first to bring the flowers from Dalmatia, in 1880, powdering them here under its own supervision. The business grew from a few thousand pounds a year to the extent of thousands of kegs. This year the firm has been excessively annoyed by the adulterations that have been put on the market by unscrupulous persons. Some reputable houses are even selling powders at 17 cents, claiming them to be from closed flowers, when the flowers alone are commanding 22 cents in Trieste. This year, he said, the most dangerous adulterant is silica. Some of these alleged powders contain as high as 60 per cent. of silica. He had been much surprised that the retail trade did not notice this, as the fraud can be

clay street. That firm has a building running through to Vesey street, or, really, it has two buildings on Barclay and on the other street. We went through the first floor of the Barclay street house, noticing particularly the very large assortment of glassware the firm has on hand. Of course, what we saw was simply the show pieces, not the stock, but I don't remember having seen such an amount of samples before, that is, in that line. In the office on Vesey street we found Mr. F. M. Underhill, one of the firm, at his desk. He welcomed us cordially, and we had a pleasant chat with him about trade and the firm's lines particularly. We did not go through the stock and packing rooms, but were told all about them."

"Did you see Mr. J. H. Stead, the head salesman, and Mr. C. H. Lester, the manager?"

"Yes. I was introduced to them on our way out. You know Whitall, Tatum & Co.'s New York office has about forty or fifty clerks, and they were all busy. Mr. Underhill told me they have about fifteen salesmen on the road."



ON THE PROMENADE, BROOKLYN BRIDGE.

easily detected. All vegetable powder has a fibre, while the adulterant contains none, of course. He thought that the whole retail trade ought to wake up on this matter.

"The building of this firm is well worth a visit, as it is probably the nearest approach to being fireproof that a building can be made. It is certainly the best constructed drug building there is in the country. It is built on the principle of the Marvin safe. The floors are laid on cement. Under that are four inches of ashes, and last of all is the solid iron. The hatchways are so constructed that when they are closed the floors are just as tight as if hermetically sealed. It is utterly impossible for a fire to spread from one floor to another.

Whitall, Tatum & Co.

"Where did you go on Thursday?" was the first question asked by Mr. Phillips.

"Our first call that morning was at Whitall, Tatum & Co.'s office, on Bar-

"That's for the New York house alone, you mean?"

"Yes, of course. The Philadelphia house has its own men. The New York house must do a big business in glassware and druggists' sundries.

"When we left Whitall-Tatum's I went across the street to call at Richards & Co., Limited, where I have a friend. The firm deals in chemists' and assayers' supplies. I found my friend was out, so didn't stop there but a minute.

Charles Stern & Sons.

"Being nearby, I thought I would like to drop in at the office of Charles Stern & Sons, 14 and 16 Vesey street. That is a very large wine and brandy house that has many customers in the drug trade. Their home office is at Los Angeles, Cal. Mr. Perkins Stern was in and we made ourselves known to him."

"In what particular way is that house connected with the drug trade?"

"The wines of this firm are made with particular reference to their use by the

drug trade. They are pure wines and are guaranteed so. Their brandy, for instance, the double-distilled, is put up in ten-gallon kegs to suit the wants of our trade particularly. Their sweet wines, port, sherry, angelica and muscatel, and their zinfandel and Burgundy are used in making wine of coca. If we had had time we should have been pleased to go through their cellars."

"I suppose you did see some of their best wines?"

"To tell the truth, we received a very pressing invitation to sample some very excellent brands, but we were obliged to go on with our calls, and so we agreed to call again.

"Now I am going to tell you about my most interesting call of the week. It is interesting because it is out of the usual line and because we saw so many things that very few people have the chance or opportunity to see. It was at a call on George Lueders & Co.'s house, on Pearl street, No. 218."

"What are the specialties of that firm, Lewis?" asked Mr. Phillips.

"Olive oils, essential oils, perfumers' raw materials and fine drugs."

"I suppose the perfumers' raw materials were the things that made your visit there so interesting?"

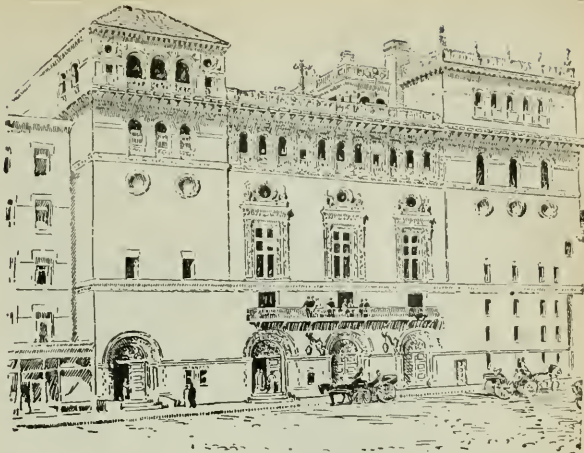
"Yes; but you are anticipating me. Let me go ahead in the right order, and I will come to that part of it.

George Lueders & Co.

"When we reached the firm's office we asked for Mr. George Lueders, and were directed to the rear of the store. We found the head of the firm busy at his desk, but when we stated the object of our visit he dropped everything and devoted over an hour to our instruction and amusement. First of all he told us about the specialties of the firm, as I have told you. In connection with that article he told us of a case that had recently come to his attention that furnished quite a joke at the expense of the chemists. Three samples of olive oil were drawn from the same can and taken to three different chemists for analysis. The oil was the purest that could possibly be obtained. When the three reports came in one chemist said the sample contained sesame, another that he found lard oil in his, and the third said the oil was surely pure. It seems that there is a test given in a German book that is known to be entirely wrong, and the chemist who had found sesame in the oil had used this test.

"After this Mr. Lueders went to a big safe in the office and brought out two good-sized glass jars, whose glass tops were securely screwed down. He took off the covers and said: 'There is pure ambergris.' We saw a very insignificant looking lump of stuff, light brown on the inside and quite dark outside. We smelled it, but the odor was very faint and not remarkable at all. Mr. Lueders said that the piece he was showing was the very best of ambergris.

"Next, after covering, securing and replacing the jars in the safe, he brought out five small tin pans, and, lifting the covers, showed in each about a dozen objects that looked not unlike little bags made of untanned hide, with the hair still on. These, we were informed, were the sacs from the



ONE OF NEW YORK'S THEATRES.

musk ox, and contained that valuable article, musk. What a smell, so different from the musk we know. It was really a disagreeable odor these little things gave forth, and yet the small amount there was worth \$3,000. I handled some of the sacs, and for days I could smell the musk when I raised my hand to my nose. No amount of washing seemed to destroy the odor.

"Mr. Lueders told us one thing about the trade in musk ox sacs that was new to me. These sacs were from China, and are bought through a very reputable house, yet it is no unusual thing to get a number of absolutely valueless sacs in a consignment. There is no return of money in a case of this kind, and there would not be even if every sac that came was worthless. The sacs are all paid for before they are shipped from China. The way in which these sacs are tested for quality is also quite interesting. Long pins or needles are inserted in the soft part of the sac, drawn out slowly and held to the nose. You would be surprised to note the difference in odor between the various grades. Of course, all small rank, as compared with the perfume on a lady's table.

"Putting away the sacs as carefully as he had the ambergris, Mr. Lueders called us over to the safe and showed us row after row of cans containing attar of rose. Each can, he said, represented \$300. Then we went back into another room, also containing a safe, from which he took bottles of attar, some with the contents like jelly, others half jelly and half liquid."

"How I should have enjoyed the various perfumes had I been there," said Mr. Phillips.

"Well," was the answer, "I can assure you that you would not have enjoyed the civet. That was shown us in a buffalo horn, just as it comes from the Soudan. My, how rank that was!"

"We next examined some of the many photographs on the walls of the office. They show the manufacture at Grasse of pomates. One of the photos showed great heaps of violets on the floors, others piles of lavender flowers in fields, with the workmen and the heating apparatus close at hand. Direct heat is used in some cases,

we noticed, certainly in the photographs of the lavender beds. Mr. Lueders presented me with several of the largest pictures, and I value them highly.

"From the office we went up to the top floor of the firm's building and saw many interesting things on that and the floors below. There was citronella in tanks, almond oil, orris root in great bags, vanilla and tonca beans in great quantities and all qualities, and I don't know how much more. Some tins in which oils had been brought from the far East were shown. I did not see anything particularly striking about them. Mr. Lueders took one up, threw it on the floor and jumped on it. Then, picking it up, all dented in and mashed out of shape, he told us we couldn't find a break or a crack in it. Those old heathens can show us some points still, can't they?"

"In some things, I suppose," was the answer.

"We thanked Mr. Lueders warmly for his kindness in showing us over his office, and when we got out voted unanimously that the visit was the most interesting of all our calls.

Johnson & Johnson.

"Johnson & Johnson's office is at No. 92 William street. We considered ourselves very fortunate in finding the principal members of the concern at the office, for they are busy men—always engaged in the pursuit of ways and means for improving what seems to others an almost perfect business. We met Mr. R. W. Johnson, the president; Mr. E. M. Johnson, the treasurer, and Mr. J. W. Johnson, the secretary. They are all modest gentlemen, but then everybody knows that firm contains geniuses in at least two different lines.

"You perhaps know how this house of Johnson & Johnson has made an enviable name for itself wherever the physician and surgeon perform their work for the benefit of suffering humanity. The almost miraculous cures effected by means of the surgeon's knife are due, many times, as much to the reliable antiseptic dressings that bear the 'Red Cross' trade mark as to the skill of the surgeon. One is the



THE OBELISK IN CENTRAL PARK.

necessary complement of the other. The medical profession knows this. It is in this way—by furnishing goods that can be relied upon—that Johnson & Johnson has not only made fame and fortune for itself, but added to the happiness of thousands all over the world.

"If there is one point more than another that I can well emphasize in connection with this house, and it is hard to single out points when you talk about Johnson & Johnson, I had best speak of such things as will linger in your memory. You are a young man, so you want to note these things, which, if copied by you, will bring you into enviable prominence in your business. 'Absolute accuracy,' that is the great point. The system with which they do everything is another noticeable thing. The house does not simply strive to keep itself abreast of the times; it tries to get ahead of the times; to bring the times up to it. In this endeavor it spares neither expense nor industry. When it comes to the matter of inventing machinery to turn out some new line, Mr. J. W. Johnson can be depended upon to devise the needed mechanism. To hear the Messrs. Johnson talk on trade topics would be worth a good deal to the young men in our business. I have often thought it would be a good plan to get such men as the Johnsons to talk to the students of colleges all over the country. Their eminently practical views would help our young men.

"The standard of excellence of Johnson & Johnson's products is always maintained. If you buy regularly from them you know that a consignment sent you this week will be just the same in quality as the one you received last week, and the one you will get next week will be the same as this week's. Then their original discoveries in the line of trade—why, I could talk for hours about them. They have originated many things that are now used the world over. Some of these goods have revolutionized the trade.

"I took great pleasure, knowing all this, in going through the office on William street, and expressed a desire to go out to the firm's factory at New Brunswick. Mr. R. W. Johnson was kind enough to invite me to go with him. We went by way of the Pennsylvania road, taking the ferry at the foot of Cortlandt street. By the way, that bridge across West street to the second floor of the ferry house is a very handy thing. The stairs that lead to it are in the last building on the left side of Cortlandt street, and when you cross you are on a line with the upper decks of the ferriboats. That bridge saves you from worrying about crossing the street between the trucks, horse cars and other vehicles that crowd that part of West street.

"To go on, we had a pleasant ride out to New Brunswick, taking about an hour. I should think, during which time Mr.

Johnson told me how the firm's business had been built up and how much pride he and all the rest of the company took in maintaining the excellence of their products. I found the factory was alongside the Haritan River, very handy for shipping goods by water or for getting raw material right to the buildings. All goods are shipped direct from the factory, and with such facilities it is no wonder their delivery is prompt.

"We went into the bleaching-room first. The bales of cotton, just as they are taken from the steamships, have been opened, and the contents run through the machines which clear out all seeds, sticks and stones mixed with the cotton. Then the cotton goes into a boiler, and from there to the bleaching tanks. These contain a compound that does the work in great shape. His forks pass the cotton along.

"From the tank the material passes to the apron, or endless platform, which carries it upstairs to the dryer. It takes about half an hour for a particular little piece of cotton to go through this dryer. I don't recollect the names given to all the machinery, but the next operation was that making the cotton as fluffy as can be. Then the material was rolled. At first the cotton was quite thick, but as it passed in succession through machines it became thinner and thinner. At last it was down to the required size. Then on it went into other machines, each one adding a layer to the others. After passing through the last machine it is cut into certain lengths. The workman who does the cutting is so expert that he cuts off the necessary weight of cotton almost every time. Of course, the weight is afterward verified.

"I went through about every department in the factory. When you go to New York you can go and see all I did, for the trade has a standing invitation to visit the factory. In the matter of handling goods the firm is exceedingly careful. From the time a piece of cotton is taken from the bale to the time it becomes a finished product it is hardly touched by human hands. We spent some time seeing the manufacture of bandages and plasters of all kinds—so many that I would tire you if I were to tell you about each one—medicated cotton, catgut ligatures, dressings and gauzes, and lots more. But you have already got a pretty good idea of my visit, haven't you?"

"Yes, but I am going to see all that myself some time, so leave a little to be new to me," said Mr. Phillips with a laugh.

Theodore Ricksecker.

"One can't help but appreciate the value of energy, enterprise and faithful adherence to principle when he visits the laboratory, warehouse and office of Theodore Ricksecker, the perfumer. No. 58 Maiden lane near William street. I felt at home there, partly because, as you know, he is a native of our own State—Ohio. In looking around among the first-class druggists of New York city I found his perfumery up to the top, as is the case in most of the best drug stores wherever his goods have been properly shown. Whether you visit the Summer or Winter resorts, Saratoga, Newport, Jacksonville,

etc., these goods are excelled by none, and it is no wonder. He has employed at various times manipulators from the laboratories of Pesse & Lubin, London, Pinaud, Paris, and Lautier Fils, Grasse, as well as domestic talent, besides his own experience.

"He is one of those painstaking men who is determined to master the details of his business, and is content with nothing short of the 'top' position by earning and deserving it, consequently every ounce of perfumery bearing his name is compounded by himself. Having been for many years closely identified with the retail druggists of America, a member of the A. P. A. and N. Y. College of Pharmacy, he appreciates the difficulties that environ the druggists; he studies their interests and refuses to sell the dry goods trade, so that Ricksecker's goods, wherever sold, bear a legitimate profit. He has refused large cash dry goods orders repeatedly.

"The originality of his goods in all details, bottles, boxes, labels and tying, has been for many years conceded, coupled with most excellent taste. Mr. Ricksecker sees little difference between stealing another's designs, names, labels, etc., and stealing his pocketbook. He shows the various thefts of his rounded bottom bottles, labels and names by competitors, and I must say it is not creditable to the trade.

"The seven floors of the Ricksecker building were visited by us. In each department the evidence of constant progress is visible. The question, "When does Mr. Ricksecker sleep?" has been asked more than once. I can understand it now. His vacation consists in going to Montreal and working in the branch laboratory there, and his goods are held in highest esteem all over Canada.

"I'm sure it would strike you and every druggist as most remarkable to see what I saw—executed orders from almost every nook and corner of this world. I saw orders from London, Berlin, Edinburgh, Belfast, Calcutta, Honolulu, Alaska, West Indies, South America, Australia, and even Gibraltar, Rangoon, Hong Kong and Ceylon. This is an unprecedented state of affairs, due fairly to merit and work. In spite of depressed business, three of the days I spent in New York brought in orders from New York city retail druggists of 108 dozen Ricksecker's Skin Soap alone. It's a specialty well worthy its most excellent reputation, and it is sold, like Ricksecker's perfumes, on merit.

"See how Mr. Ricksecker fared at the recent World's Fair. His were the only perfumes sold on the grounds. There were also 200 slot machines scattered over the grounds with his name on them. His exhibit was given the post of honor—the first on entering the main building, and his awards were the highest obtainable. His representative kept a register, which is an interesting record, of visitors from all over the world, and embracing some of our most distinguished men, professors in colleges, artists and professional men, as well as many of the druggists who used to buy goods from him in the '60's, when he traveled for the old house of W. H. Schieffelin & Co."

Connecticut Witch Hazel Company.

"You wouldn't think that I had time on my trip to go up into Connecticut, but I did, and I had a very pleasant time and lots of carriage riding. It came about in this way. I was, of course, interested in the process of making witch hazel, and I made up my mind when I got to New York that if I possibly could I would take a run up to the distilleries of the Connecticut Witch Hazel Company, which are at Chester, Haddam and Killingworth. Well, in the course of my journeyings around New York I met Mr. E. W. Seymour and Mr. A. H. Watson, who have an office at 132 Nassau street. They control the company and take the active management of the business. I was invited up to see them and gladly took advantage of the opportunity. We naturally talked about the industry in which these gentlemen are engaged, and I was particularly impressed with what they said about their goods. They make a good, honest article, and they want the trade to know that whenever it procures goods with their mark it can get no better witch hazel. It is surprising that so many retailers make use of an alleged witch hazel that is only a weak distillate and contains a large portion of acid. These gentlemen told me that they did not think the trade was fully aware of the deception practiced upon it. If the trade-mark 'Hazel Bloom' is found on a package containing witch hazel the purchaser may know that the article inside is the best that can be bought. That mark is a guarantee of the quality of the goods.

"Finding that I was myself considerably interested in witch hazel, Messrs. Seymour and Watson invited me to go up to their distilleries, and so I agreed to go. I was fortunate in going to New York when I did, for the company was just making the last run of the season preparatory to closing the mills."

"How do you go to Chester?" inquired

Mr. Phillips. "I'm not posted on railroad routes around New York."

"Chester is a very easy place to get to. We took one of the Boston expresses from the Grand Central Station in the morning and went through to Saybrook Junction in quick time, making only one stop, at New Haven. Chester is nine miles from Saybrook Junction, and to get there we took the Connecticut Valley Railroad. Close to the station stands the large warehouse of the company, so we did not have many steps to go before we were seeing the inspection, storage and bottling of the witch hazel. This warehouse receives the product of the three distilleries, so you can imagine it is a pretty good-sized building.

"After seeing just what was done at this point we were taken in a carriage over to the Chester mill, about two miles from the warehouse. There I saw the brush ready for the stills, the brush-cutters, stills, condensing coils and all the other machinery used in the manufacture of the distillate. While I was at this mill I noticed several men looking at the machinery and at other things of interest, so I naturally supposed that like myself they were visitors to the mill. I asked Messrs. Seymour and Watson if it was their practice to allow people to enter the mill and see the method of making witch hazel. They told me that the other visitors were well-known people in the town, and that they had no objection to these particular persons looking over the mill. But if any reputable person wants to know anything about the manufacture of this firm's witch hazel all they have got to do is to make inquiries at the office and they will be answered. This firm has no desire to make people think there is anything mysterious about the manufacture of their goods."

"I like to see people like that," interrupted Mr. Hopp's friend. "It is quite refreshing to learn about their methods."

"Quite right, Tom," answered Mr. Hopp.



THE MALL, CENTRAL PARK.

"Did you go to the other mills of the company?" was asked.

"Of course. We re-entered the carriage and drove five or six miles this time. That brought us to the Killingworth mill, where old processes are used instead of the more modern ones. From there we went on for five miles to the Haddam mill, where the same kind of machinery is used as at Chester. So I had not only seen the making of witch hazel, but I had a capital ride, too, and when I returned to New York I felt well repaid for my trip."

At R. W. Walker's Office

"You remember my account of a visit through one soda fountain apparatus company's buildings? Well, we had an opportunity a few days later to inspect the offices of R. W. Walker, New York agent of James W. Tufts of Boston, and Howell & Sangston, agents for Low's Art Tile Company. The former is on Warren street, near Broadway, and is a very large room, extending back from the street a hundred feet, I should say. It is stocked full of all kinds of fountains, from small ones to big ones, and all are finished in excellent style. It was worth spending considerable time on, this show of handsome fountains, and we did make a very thorough examination of the various styles. Mr. Walker explained the method of making the Tufts fountain, and told us about the difference in cost between the many kinds.

Howell & Sangston.

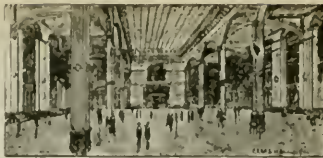
"The Low Art Tile Company has its office in the Havemeyer Building, on Church street. There I met the New York agents, and, as at the Tufts office, we had a very pleasant talk about the trade and the growing disposition on the part of druggists all over the country to have the finest fountains they could buy. Messrs. Howell & Sangston have a wide acquaintance in the trade, and I found them very well posted on the condition of business in New York and the adjoining States. They told me that their business is very good, and I find that is the general opinion of the fountain manufacturers. I wish you could see some of the handsome apparatus many of the New York retail druggists have. They are beauties and no mistake.

On Brooklyn Bridge.

"I spent one whole day and part of another in seeing the downtown points of interest in the city. The first place I went to was Brooklyn Bridge, and I walked over and back, so much did I enjoy the scenes presented and the fresh air. I was surprised at the number of people who were crossing the bridge. I expected to see very many poor people walking across, of course, but not so many well-dressed men and women."

"I think that perhaps that is the way many business men who live in Brooklyn and have their offices in New York get a daily constitutional," was Mr. Phillips' remark.

"Well, if they walk across that bridge twice a day it is almost enough exercise for any man who is on his feet any time at all during the day. The view from the centre of the bridge in all directions is very attractive on a pleasant day, with the shipping in motion up and down the rivers and in the bay. Staten Island looks as if it might be just the place to live in the



THE PRODUCE EXCHANGE.

Summer time, and if they get the breezes on the slope in Brooklyn as I got them that day on the bridge I shouldn't ask for a better place to sleep in during the heated term. You know that the average New Yorker delights to make fun of his friends who live across the bridge by telling them that Brooklyn is only the bedroom of the metropolis."

"I have heard so."

"As I was going along Chambers street I saw a picture in the window of a photographer that presented the view on the big bridge almost exactly as I saw it that day, so I thought I would buy it and bring it home to you. Here it is."

"That looks like an excellent view of the promenade," said Mr. Phillips, "and I am much obliged."

"Most of the views of the bridge are taken at a distance, and that is the only one I ever saw that showed the broad walk."

Cushman Bros.

"I looked into the matter of selling goods in New York and its vicinity very thoroughly and may be able to tell you something of interest in that line. You know that many schemes are brought before manufacturers for the introduction of their goods, but after all one has to fall back upon the faithful salesman. It is not every manufacturer, however, who can afford to keep a sufficient number of men in a large market like New York and vicinity to cover it properly and to visit the wholesale and retail trade often enough to secure the results. It was this fact that first suggested to Messrs. Cushman Bros. their agency plan, which has proved so successful for the past six years. The rapid growth of this firm has certainly been phenomenal. In September, 1888, they started business in a small office at No. 132 Reade street, and in a few months they found it necessary to hire more floors in that building and in less than two years their business had increased sufficiently to warrant their taking their present quarters, an eight-story building of 30x100 feet.

"Their system is original, and certainly deserves the attention of manufacturers

who are seeking the New York market. They have two distinct departments, one devoted to the grocery trade and one entirely to the interest of the drug trade. In the latter they have a staff of eight salesmen, who are districted off on different territories in New York, Brooklyn, Jersey City and Hoboken and a circuit of forty miles. These salesmen simply offer the goods for which Cushman Bros. are agents, and cover their territories about every ten days, drumming the retail trade and turning over the orders to the jobbers. So complete is the system that storage, insurance, clerical work, cartage, labor, etc., are all provided without additional cost. In fact, the manufacturer has really established a branch house in New York without having to attend to a single detail. Reports are sent daily showing the actual orders turned over to jobbers and all goods sold. The Drug Department is under the management of Fred Fear, who has been associated with Cushman Bros. since they started this business."

"There was money in that idea, wasn't there?"

"Yes; but it takes smart people like the Cushman brothers to do the work well.

Wm. R. Warner & Co.

"I won't give the rest of our calls in consecutive order, because some days we only called on one or two houses, and spent the rest of the time sight-seeing. One day, when I happened to be on Liberty street, I dropped in at the office of William R. Warner & Co. That is the New York branch of the well-known Philadelphia house. The first person we met was Mr. Ed Fluhr, the manager of the office."

"You must have seen Mr. Lance in New York. I heard he was there while you were away."

"So I did. He was sitting at the desk near the window when we went in, and of course I had quite a talk with him. As he is the general traveler for the house, I hardly expected I should see him at the office. Mr. Fluhr regretted very much that Mr. Warner, Sr., was not here to welcome us, but he has been in Rome, attending the Medical Congress,

and has now gone to Antwerp to see about the firm's exhibit at the coming fair. He will not be home until the latter part of May.

"You know this firm is specially noted for its bromo soda, the well-known effervescent salt for headaches and seasickness, elixir salicylic comp., inulin, liquid pancreopepsin, bromo lithia and a general line of sugar-coated pills."

"Yes, I know that the firm was the pioneer in the sugar-coated pill business." "The original house was established in 1836, and the New York office was started in 1878. Now they have branches in Chicago and London. Their success has been enormous. Mr. Fluhr said that Mr. Warner frequently visits the New York office. I know him to be a very popular and genial man."

The L. Calvin Shafer Co.

"One day, on returning from some jaunt or other over in Jersey, I came over the Pennsylvania ferry, and on going up Cortlandt street saw the sign of L. Calvin Shafer Co., manufacturers of fruit juices. Going in, I met Mr. A. Doyell, the manager of the concern, who showed me through the building, in which is stored a very large stock of fruit juices. To show how much stock the concern carries, I can tell you that the company has filled an order for seventy-five barrels of raspberry juice, and never turned a hair. It wouldn't had the order been for 175 barrels. The grinding and pressing of the fruit, and all apparatus for the work of the concern, were shown me. The work was in full operation, for that day they were grinding oranges. Downstairs we found 500 barrels of fruit ready for pressing and filtering. The building is five stories, and besides the work done there, a factory in Jersey is kept going nearly all the time. Several other buildings are used for storage, both for fruit and the juices ready for the market. In 1829 the firm began business under the name of Philip Gordon. He was succeeded by I. C. Shafer, and the concern was, in 1883, incorporated under its present name. The trade extends from Maine to California, principally with the wholesale druggists. The work is all done by steam power, and the product is guaranteed for ten years' time. Everything is first class in every respect as regards the quality of the goods turned out. In concentration of flavor, making the price cheaper for the druggists, the firm admits no superior. The retailer finds the concentrated flavor much cheaper to use at his soda fountain, as you can readily understand.

Upjohn Pill and Granule Co.

"The Upjohn Pill and Granule Company has had an office in New York for four years, the head office being, of course, in Kalamazoo. We called on Mr. F. L. Upjohn, treasurer of the company, at his office, 60 Maiden lane. He told me that the Company got all its stock from the Michigan factory, and filled orders in New York for the Eastern and foreign trade. The latter has grown to quite considerable proportions on account of the firm's peculiar process of making pills—that is, so that they will keep in all climates. The trade with Mexico and South America is especially good."

"Don't the New York firms speak about

the present depression in business?" came the question from Phillips.

"I heard very little about dull times. Now Mr. Upjohn said that his business had never been more prosperous than it had been in the last three months. Trade with England and Germany had been first class, and the two local salesmen, as well as the whole office and shipping force, had been kept busy all the time.

Other Calls.

"At another time I ran across Mr. C. A. Holmes of No. 96 Maiden lane. He pushes the goods of the W. S. Merrell Company of Cincinnati, in New York and its vicinity. As we were then near his office, he asked us to drop in and have a chat, which we did. You know all about the Merrell products, so there is no need of my telling you about them. We found Mr. Holmes a very pleasant gentleman to meet.

"You know we saw a great many more stores than I have mentioned, especially the retail ones. One day we happened to go into a store to buy something, and I was looking over the sundries displayed on the counters, I saw what appeared to be straws for juleps, lemonade, etc. I asked if there was much of a sale for such articles, and was told there was considerable. 'Those are paper straws,' said the clerk, as he handed me a package. I was interested at once, being struck by their novelty and evident utility. Natural julep straws are cut green, and as they frequently dry faster on one side than the other they spring or warp, so very many of the natural straws are cracked. Moreover, if the natural straws are placed in a moist atmosphere, which is almost unavoidable in a sea voyage, they become moldy on the inside. Upon drying again the mold turns to 'must,' so that if a natural straw is not cracked and can be used at all it is almost sure to be 'musty.' On the other hand, this kind I was shown—Stone's Patent Paper

Julep Straws—all are perfect, clean, free from mold, and as they are larger than the natural straws, one straw will always suffice for a drink. I noted the name and address of the manufacturer: M. C. Stone, 430 Ninth street, N. W., Washington.

"While I was in New York you will have observed that I not only visited many drug firms, but also companies that make articles used by men in our line. I found much that was new to me in the machinery line, as well as in the fountain-making business. So when I had a chance to visit the Springer, Torsion Balance Company's office, at No. 92 Reade street, I did not neglect it. I strolled in there one day and met Mr. Albert Fries, manager of the concern. He explained the company's product to me. The Torsion balance is a compound beam scale or balance used by many chemists and druggists, as well as by grocers and confectioners. It gets its name from the manner in which the fulcrums twist or 'torse.' Mr. Fries explained that the superior features of this balance are its accuracy, durability, sensitiveness and simplified method of construction. He explained this method to me in an interesting way. The scale, he said, is indorsed by high authorities, and received a medal of superiority from the fifty-fifth National Industrial Exhibition of the American Institute, New York, 1886, and the John Scott Legacy medal and premium, awarded by the Franklin Institute, Philadelphia, 1891.

"You know, I suppose, that the New York Board of Trade and Transportation has a drug trade section, and the trade in that city finds great assistance from that body. Mr. Thomas P. Main is at the head of the drug trade section this year, and on the committee list can be found the names of representative men in our line. I saw the list in the Era a few weeks ago. The office of the section is in the Mail and Express Building, where



THE NEWSBOY'S NARROW ESCAPE.

we called one morning. By the way, I think that a very handsome building, with those great figures in front, representing Europe, Asia, Africa and America.

Nearing the End.

"I am getting down near the end of my story," said Mr. Hopp, as he consulted his watch and found the hour late. "The rest of this narrative will have to be short. One of our calls was on the New York branch of the Albany Perforated Wrapping Paper Company, at 28 to 30 North Moore street. This firm is one of the best-known concerns of the kind in the country. It is known in the drug trade, not for its wrapping paper particularly, but for its superior quality and many kinds of toilet paper. This company is the originator or some of the best-known brands of toilet paper on the market.

"The New York office of the William Budding & Son's Co., at No. 142 Chambers street, was another place where we were cordially received. Mr. Schang, the manager in charge, took good care of us and showed us the sample rooms, containing the finest kinds of druggists' and confectioners' boxes. We did not have time to go through the stock rooms.

"Of course you know a good deal about Freddy Gebhard? His father made money in the gin trade. Well, we called one afternoon at the office of F. Ruttman & Co., selling agents in this country for Mederswan gin. The first importation of that gin into this country was made by Frederick Gebhard in 1819, the gin coming over on the sailing vessel Falcon. In honor of this importation the packages still bear the initial 'G' in addition to the trade mark."

"I have wondered what that 'G' stood for," said Mr. Phillips.

"Now you know. To go on with my story. The firm that makes Mederswan gin is a very old one. Their distillery at Schiedam, Holland, dates away back in the eighteenth century, and their distinctive trade-mark, the swan, was adopted in 1816. The present house is Meder & Zoon. Mr. Ruttman became manager of a department of this agency in 1853, and upon the suspension of the successors to Schuchardt & Gebhard in 1875 Mr. Ruttman continued the agency under his own name.

"I think I have been up and down Maiden lane about forty times in the past two weeks, but just which time it was when I called at the office of Scher-



IN MADISON SQUARE.

ling & Glatz, No. 55, I can't tell, and it doesn't matter. We were shown every attention by Mr. Stiefel, the active partner. He gave me lots of valuable information about the chemicals of which the firm is the sole agent in this country. I learned considerable about rubidium, iodide, cresosol, chloral-caffeine and benzophenol. I had a very interesting call there, and was sorry I couldn't go through their whole office.

"There were lots of other places on my list to visit, some of which I was very anxious to see, such as the New York office of Frederick Stearns & Co., Dodge & Olcott, the Armstrong & Bros. Co., the big cork house, and the New York office of Clapp & Co. I know some people in most all those offices. I was especially sorry about not being able to go over to Dodge & Olcott's Brooklyn factory, as I could have spent a day there very easily had I had the time.

"I had great luck while in New York as regards fine weather. The day I went up to Central Park was a perfect one, and I must have walked many miles over those paths. I spent quite a long time at the obelisk, which was brought over to this country by Commander Goringe of the navy, W. H. Vanderbilt paying all the expenses. I was quite tired before I got out of the Park, and took in the Mall from one of the benches. Of course, I visited the Metropolitan Museum. No one ought to visit the Park without going there. I could have spent several days in that

building alone, but, you know, time is money.

"Outside of the general points of interest I have told you about, I spent a few minutes at the Produce Exchange, the Battery, the Cotton Exchange, and even managed to take a ferryboat ride to Staten Island. That ride gives one a splendid idea of New York Harbor.

It Pays to Visit New York.

"Well, I think this is about all I can tell you now. Of course, I have omitted much, but from day to day things will come up that will recall my visit to New York, and I can tell you other experiences in short chunks. The only unpleasant experience I had was on the first day I was in New York. I was coming down the steps of the elevated station at 33d street when I saw a newsboy come about as near being killed by a horse and carriage as I ever want to. My heart went up into my mouth that time, I tell you. But the boy escaped by a hair, then turned around and called the driver hard names. Those newsboys are terrors."

Mr. Phillips thanked Mr. Hopp for his kindness in detailing the trip to New York. As they parted Mr. Hopp said: "You know I said that I believed that this trip would be of great value to me. I now know it will. I have learned many things that will help me in business. Just tell all the druggists you know that a visit to New York once or twice a year will do them an immense amount of good, and that the cost is money well spent."



MAY 1ST 1894.

THE

PHARMACEUTICAL ERA.



MICHIGAN CENTRAL STATION
DETROIT.



FALLS VIEW STATION, MICHIGAN CENTRAL.

MOVING
DAY
NUMBER



O. HAYNES & CO.



— THE PHARMACEUTICAL ERA STAFF —

1. WM. H. RANDALL, News Editor.

2. E. J. KENNEDY, Pharmaceutical Editor.

3. CHARLES BRACE, Chief Accountant.

4. F. N. SWEENEY, Publication Manager.

5. MILES TURPIN, Advertising Department.

6. CHAS. W. PARSONS, Managing Editor.

7. D. O. HAYNES, Prop. and Gen'l Manager.

8. D. H. NEWHALL, Advertising Manager.

9. W. M. FREDENBURG, Trade Editor.

10. HUMES HALL, Subscription Manager.

11. ROMAINE PIERSON, Advertising Dep't.

12. W. ESPENOR LORD, Advertising Dep't.



A Sketch of the Era's New York Office.

THE PHARMACEUTICAL ERA.

A Brief Sketch of its History and a Description of How the Journal is Produced.

The history of any successful enterprise is not without interest, and often possesses positive value through its relation of methods employed to overcome obstacles to advancement, and by reason of its presentation of facts and details consequent upon the building up of success, from which lessons of usefulness to others may be gleaned. Believing this to be admitted, no apology seems necessary for telling briefly the story of the Era, and giving, in some degree, an insight into the processes of its mechanical construction. The publication of a successful trade journal is a task of large magnitude, requiring unremitting attention to detail, as well as the exercise of business sagacity and untiring energy. There must be, as well, the faculty of justly appreciating the desires and needs of readers, and an ability to select from chaotic and heterogeneous material that which is closest and best adapted to the aims of the publication. All these, it is repeated, are factors contributing to the result—success. In a secondary direction, there are required such resources of the printer's art that promptness in publication, nicety of mechanical workmanship and taste in execution may be confidently relied upon.

The Pharmaceutical Era was established seven years ago, its first number bearing date of January, 1887. Its founders were Mr. D. O. Haynes and Dr. Albert B. Lyons, the former assuming its business and financial conduct, the latter the editorial service. The purpose of the journal was to cater to the retail drug

trade, and from its initial issue, which bore strong evidence of a thorough and wise recognition of what are the highest interests of the profession of pharmacy, this purpose has been kept constantly in mind. There was a breaking loose from what had grown conventional in drug journalism from long observance, and attention was given to each and all of the numerous branches and ramifications making the total of the drug business in America. The baby journal found friends at birth, these it has kept and increased in number with its growth. The Era was first issued monthly, containing, beside liberal advertising, thirty-two pages of reading matter, set in double-column measure, briefer type, leaded. This material was classified into several well-defined departments, mainly pertaining to the professional side of pharmacy, but with the passage of time the importance of trade and news features has been recognized and these departments extended in appropriate proportion.

During 1888 Dr. Lyons, because of impaired health, found it advisable to return to the more propitious and healthful climate of his native land, the Hawaiian Islands. Therefore, severing his connection with the journal, he sailed for Honolulu, his interests being purchased by D. O. Haynes, who has since been sole proprietor and general manager. At the same time the editorial supervision became vested in the management yet retaining it.

As hinted, the progress of the Era was continual, and so abundant that in the same year (1888) it was found necessary to issue a supplemental publication, christened the Era Supplement, to present purely trade and news matter. This supplement, later called the Trade Edition

of the Era, and issued alternately with the Era, rapidly increased in size and importance from its sixteen pages at the start, until, at the close of 1890, both editions, having become of such considerable size, were merged into one semi-monthly journal, which should combine the features of both, and minister still more completely to the wants of the trade.

It is hardly necessary to relate the successive steps which have brought the Era to its present form and position. Suffice it that with each issue some change has been deemed judicious, in material and make-up, and in both advertising and reading features the record has been one of continual increase. From the thirty-two reading pages per month in 1887, the number has now reached forty-eight in each semi-monthly issue, and frequently this number has been added to in order to accommodate some special feature, timely tale or important news report. Readers are familiar with the Era of today, but a few statistics may not be amiss. Taking but the first half year of 1893, we find there were of reading pages alone 576, presenting over 900,000 words, in solid nonpareil type, set in three columns, and embellished by nearly 200 illustrations of pertinent application. The index shows that over 2,100 topics were considered. A simple mathematical computation discloses that each yearly volume contains more than half a mile of original and selected reading matter, and the amount of paper employed in the production of the Era for one year, if cut and pasted into a strip the width of a column, would encircle the globe over seven and one-half times.

The advertising and subscription patronage of the Era have been not merely

liberal, but phenomenal, as indeed it must have been to render possible the attainment of its present position. It is in commemoration of the point in its history where it has been considered wise to change its base of operations from Detroit to New York that this special MOVING DAY NUMBER was conceived and is presented. It is a timely opportunity to describe the operations necessary to the mechanical production of such a publication, for we know that such a tale will be appreciated by the many who have but a faint conception of what is implied by "making a paper."

The story is simple, involving consideration of but two points—what to print, and how to print it.

What to print. To print anything, pro-

good paper, and this must be effected largely in the editorial branch, working, too, in harmony with the business department. In providing reading matter, plans must be laid far ahead. The editor must have a broad and fair conception of the circumstances and desires of his readers, and know and correspond with the leaders in thought and action, the writers and practical men, in the profession. From them is secured material of standard character, and it must always be seen that this be secured sufficiently in advance to provide a stock of material to form the body of each issue of the paper. In this line comes the relation to news correspondents, who must be kept constantly instructed, and whose letters must be prepared and sent with clock-like reg-

ularity. The host of exchanges are read with reference to their value as copy, and clippings and abstracts made from them and classified into appropriate departments. Beside current publications, a comprehensive working and reference library is in constant service to answer the thousand and one queries conveyed to the editor, some of these necessitating (in the Era) considerable practical chemical and pharmaceutical experimenting and testing for a satisfactory reply. A filing cabinet is an essential, wherein are kept odds and ends of information for frequent service. The leading current topics must be intelligently and intelligibly discussed editorially, requiring no small de-

gree of familiarity with affairs of the trade. Market and trade reports, original and selected papers, news letters and reports, editorials, trade articles, all must be prepared and ready on certain specified dates, for, like time and tide, the printer waits for no man. But, though knowing what is to be printed, much remains to be done before "copy" goes to the printer. All must be "edited." No paper, no matter how well educated and posted a writer, but requires alterations. News letters must be cut down or rewritten, a paragraph inserted or deleted, punctuation, spelling and diction revised, and the whole marked with those mysterious hieroglyphics which to the printer are plainest directions for kind of type, paragraphing,



Machine Composition for The Pharmaceutical Era.

vision must be made to pay the printer, and in a journal of this magnitude this provision must rest largely in advertising patronage, for it may be said that the income from subscriptions is considerably below the necessary amount. Therefore, a carefully selected corps of business representatives work in harmony and closest touch with the home office to secure this advertising support, while subscriptions come through many channels. It must be remembered that neither subscribers nor advertisers can be gained unless the paper be a good one; and the better it is, the more support from each. A good rule, which works both ways. Really, then, the essential to success is to make a

ularity. The host of exchanges are read with reference to their value as copy, and clippings and abstracts made from them and classified into appropriate departments. Beside current publications, a comprehensive working and reference library is in constant service to answer the thousand and one queries conveyed to the editor, some of these necessitating (in the Era) considerable practical chemical and pharmaceutical experimenting and testing for a satisfactory reply. A filing cabinet is an essential, wherein are kept odds and ends of information for frequent service. The leading current topics must be intelligently and intelligibly discussed editorially, requiring no small de-

and general style. In the Era office the major part of the copy is transcribed by the typewriter, and on paper of uniform size.

So much for what to print, now how to print it.

The copy goes to the compositor, to be put into type. All matter for the reading pages of the Era is now set by the type machines of the Mergenthaler Linotype pattern, and the half-tone illustration shows a number of these machines at work on Era copy. They are costly and elaborate pieces of mechanism, their practical operation being of fascinating interest. The operator plays upon keys similar to those of a typewriter. For each key

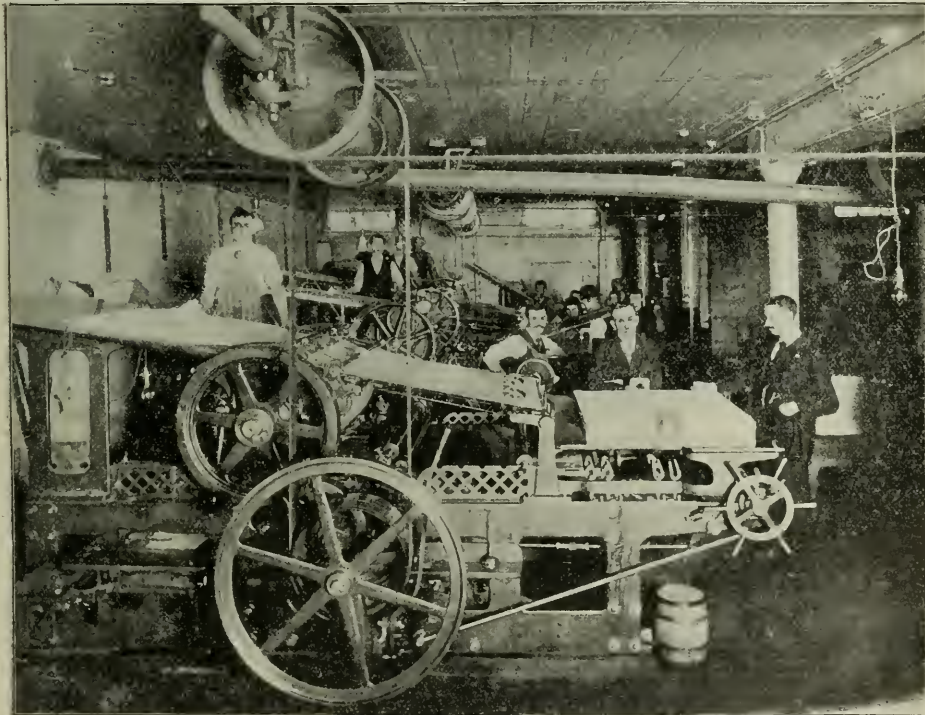
struck a matrix or mould of the letter, punctuation mark or other desired character, falls down into place, until, when a line of these matrices is completed, molten type metal is flowed over it, quickly hardening into a solid "slug," type high, bearing upon its face the letters (reversed) composing the line, and ready to print from. One man can set these matrices and cast the slugs from five to seven times as rapidly as the ordinary compositor can set by hand. This method of composition has several advantages; the letters are never "turned" (upside down), the printing face of the type is always new and clean, and beside being very rapid, there is no "distributing," for after being used the metal is simply remelted.

"make-up" man to serve as his instruction. He takes the type, now corrected, arranges it into pages like the dummy, and takes proofs of them, which he sends to the editor for revision and approval. This done, the pages of type, in sets of eight or sixteen, are arranged on the "imposing stone," and locked up in a "chase" (a rectangular frame of iron) in such a manner that when an impression of the form is taken upon a sheet of paper, the pages, upon folding the sheet, will be brought into consecutive order.

The form is now sent to the press room (see illustration) and placed upon the bed of the press, where it must be so arranged that in printing the impression will be uniform, that is, the ink must be evenly distributed on the paper. In other

in a way to increase or diminish the pressure as needed. Before the presses begin to turn, "press proofs" of the form are sent for final approval. When half the necessary sheets have been printed upon one side, they are turned over, turned end for end, and again passed through the press, being, by a revolving disc, cleanly cut in half on the way. Thus each half sheet carries the impression of all sixteen pages, and later can be folded for binding.

In the Era work, time is found for the preparation of a complete alphabetical index of contents, which is placed in type and, at the last moment, dropped into a reserved place in its appropriate form. The cover, printed in colors, requires two impressions. The red is first



Press Room of the Pharmaceutical Era.

When the copy is all set, and the slugs gathered into "galley," proofs are taken and submitted to the proof-reader. When an error is found in a line, the whole line must be reset, for it is in the form of a solid slug and a single letter cannot be altered. After this reading and correction, duplicate proofs are sent to the editor. Here one proof is again read and returned, the other being reserved for use in making a "dummy." These duplicates are trimmed and pasted in such a way that a complete copy of the Era is produced, showing the arrangement and appearance of the number to be printed. The dummy includes both advertising and reading pages, and is now sent to the

words, the entire printing surface of the form must be made of an absolute equality of plane, not as gauged by the straight-edge, but as regards the force and depth of the pressure exerted. The broad, flat printing surface of display letters must be made to equalize in printing pressure that of the light hair lines; the shaded, dark portions of a cut harmonize with the light. To do this requires the "make ready," consisting of "overlaying" and "underlaying." These operations embrace pasting layers of tissue paper (from one to half a dozen, as necessary) under the type or upon the surface of the cylinder which carries the sheet of paper through the press and against the type,

printed, the blue then put on, great care being taken to preserve the "register," so that one color may not be superimposed on the other. The illustration gives a partial view of the press room, with presses in operation.

The large stacks of printed sheets are now, after drying, ready to be sent to the bindery. Here they are folded by machines and by deft-fingered girls, another set of girls "gathering" them into complete copies, they are then stitched with wire on the stitching machine, next the cover is glued on, and finally they go to the cutter, who trims the uncut and rough edges, turning out the finished copies as our readers know them. For a



Folding and Binding the Pharmaceutical Era.

few months past, the Era has received an added finishing touch from the punching machine, which perforates the copies in such a way as to render it easy to place them in temporary binders furnished to subscribers who desire them. A fair conception of the operations in the bindery just described may be gained from the illustration.

But the work is not yet completed. For days the mailing department has been preparing the wrappers, which are divided into piles for the different states. A copy of the Era is now folded into each of these wrappers, the packages placed in mail bags and sent to the postoffice. Here Uncle Sam takes charge of them and quickly distributes them to the four quarters of the land, the subscriber in California receiving the welcome visitor nearly as soon as he in Maine has torn the wrapper from the journal for whose preparation and production the just described minutiae of careful detail are requisite.

This is the story up to the production of the present number. The next issue will find the Era installed in its new offices at 105 Fulton street, New York, a view of which is shown at the head of this article, and with every facility to meet increasing demands and to advance in the good graces of the trade by further meriting their favors.

Our aim is to make the Era the most complete and valuable of all the drug journals.

NEWS COMMENT.

Miss Frances A. Noyes, who for some time has been conducting a drug store in Lansingburg, N. Y., died in that city April 4.

A young man in Potsdam, Pa., when recently visiting Philadelphia found in the person of a druggist there his own father, whom he had not seen for twenty years.

Charles A. Rapelye, who has served six years on the Connecticut Board of Pharmacy, retires June 1, to be succeeded by Philo W. Newton.

Dr. S. L. Smith has purchased the pharmacy in Binghamton, N. Y., long owned by W. E. Williams. The latter is going to engage in other business at Reed City, Mich.

A drug store at Butte, Montana, was robbed recently of \$35 worth of hypodermic syringes and morphine, presumably by morphine fiends. As a provision for securing future supplies, the money in the cash drawer was also taken.

Glasgow & Lytle, druggists of Washington, Ia., are thoroughly renovating their store and will embellish it with a handsome Matthews fountain. Druggist J. H. Stewart, of the same city, is taking a well deserved vacation, visiting in California.

D. A. Hossier, a druggist of Pittsburg, while recently in attendance at the meeting of the Masonic fraternity at Alliance,

O., was held up one night by footpads, but through desperate resistance succeeded in keeping his valuables and sustaining no injury.

Frank W. Dean's new pharmacy at 138 Main street, Binghamton, N. Y., has been fitted throughout with shelfware and show bottles from Whitall, Tatum & Co., and boasts a new Lippincott fountain, supplied with the recently introduced detachable syrup jars.

C. E. Horton, for six years past connected with the Beeman Chemical Co., of Cleveland, has purchased the C. W. Biggs pharmacy at Elmira, N. Y. After his long service in traveling, he has come to the conclusion that New York state is the Garden of Eden.

H. W. Williams & Co., wholesale druggists of Fort Worth, Tex., who recently suffered destruction of their establishment by fire, have purchased the Meyer Bros. stock at Dallas. This will be added to their other supplies, and they expect to resume business very shortly.

A Louisville druggist who recently purchased a new proprietary mixture called pepsin whiskey, asked the city attorney if its sale would be in violation of the license regulations. He was told that he could sell wine of tar, wine of pepsin, wine of coca, and other similar preparations without a license, but pepsin whiskey was different. A case of whitecedum and tweedledee.

NEW YORK.

New York, April 18.—"The Era is coming to New York. It is a wise move. New York is the commercial metropolis of this country and the Era should be here. It is welcome."

Such is the tenor of all of the kindly expressions of drug trade men on the Era's move to this city. The New York business man is very proud of his city and he likes to see other people not only agree with him in word, but show by action that they believe he is right. So there was a double pleasure in the words of welcome they extended to the Era.

J. D. Titsworth: "It's a good thing for the Era and for the drug trade."

G. M. Howell: "The Era is an enterprising journal and it will find a hearty welcome here."

John W. Cox: "I knew he would have to come. Detroit is too small. It's only a question of time when they'll all get here."

Joseph Toy: "I shall be glad to welcome Mr. Haynes and the Era. They will be valuable additions to the drug trade here."

Edwin F. Jones, agent for C. H. Bangs: "It is a good thing. I am satisfied that the Era is one of the best drug journals published."

T. R. L. Loud: "I am sure that New York is glad to welcome such an enterprising man as Mr. Haynes and such an enterprising journal as the Era."

Howard Kirkland, of McKesson & Robbins: "I am glad the Era is coming here and that its moving day number is to show such evidences of prosperity."

"I am glad that the Era is coming here," said John Oehler of McKesson & Robbins, "for New York is the city of this continent. The Era is coming to the right place."

Henry B. Platt: "All bright men and prosperous journals get here finally. I am glad to hear that Mr. Haynes and the Era are coming and I wish him and the paper lots of luck."

Theodore Welcker, of Merck & Co.: "The Era's coming here shows good judgment. Brother Haynes may be assured that he will be welcomed. We like to have him here with us."

J. A. Sangston, of the firm of Howell & Sangston, agents for Low's Art Tile fountains: "I value the Era highly and believe that its move here is a good thing for the journal and the trade."

John M. Peters: "It seems to me that the metropolis is the only place that offers sufficient field for the amount of enterprise Mr. Haynes possesses, and I am only surprised that he has not located here before."

F. W. Koch, of Lehn & Fink: "It is the best move the Era could possibly make. I think the Era belongs here and should have been here long ago. It will stir up the other drug journals and be a benefit all around."

Thomas F. Main, of Tarrant & Co.: "I am glad to learn that the Era is coming here. The Era has always been a bright, readable journal and I think it will extend its sphere of usefulness by coming to the metropolis."

E. A. Sayre of Seabury & Johnson—"There is only one New York in the country and it is the place for such live trade journalism as is represented by the Era. The Era is welcome. I wish it every success in its new undertaking."

Brent Good: "I think it's the best move that could possibly have been made. We need to have a little competition here, for it will give us more and better news. The Era will not be second in the race if the present motive power behind it remains with it here in the foggy east."

Paul Monlun, of Charles Blanc & Cie: "I compliment the Era very highly on the move. I very seldom say anything of this sort so you may know that I am sincere. To my knowledge the people who take the Era read it very thoroughly and that is one of the reasons why it is valuable as an advertising medium."

Alfred H. Mason, of Seabury & Johnson: "I am glad we are to have the Era here. I suppose that the western folks are just as sorry to have the paper leave there as we are glad to have it come to New York. The natural law of gravitation accounts for the move. We are in touch with everything here and the Era will find it much better to be close to the New York trade."

G. W. Hopping, of Seabury & Johnson: "The Era is responsible for the loss of much time in the offices of this city. I hope Mr. Haynes will not make the paper any more attractive, for then we shall have to spend more time even than we do now reading his excellent paper. Seriously, I do think he has made a very wise move. The Era has made an enviable name for itself and its friends in the west must regret its change to this city. Their loss is our gain."

Johnson & Johnson have every reason to feel indignant at the proposed passage through the national house of the act which is supposed to protect the insignia and the name of the National Red Cross Association. They assure everybody that they are just as much in favor of giving the Red Cross society the protection it needs as any members of the society are, but they do not believe that the destruction of their or any other firm's business through the passage of a ridiculous and, as they believe, unconstitutional bill is necessary in order that the society may live and do its work. The bill proposes to visit the most unusual punishment on men and firms who were in business and using the sign of the red cross as a trade mark long before the society was recognized in this country, if its provisions are violated. Trade marks which are worth millions of dollars, and what is more valuable, are guarantees to the men who are engaged in the relief of the same people the society aids, the sufferers from disease and injury, are to be taken away from their owners. The government, it is suggested, might as well confiscate a man's personal effects as to rob him of the symbol by which he has made his products known to the world, by which he has built up his business and by which he has secured an enviable name for those articles which often save the lives of those near to death. More than this, the bill is condemned for that particular clause which says that any firm now using the red cross as a trade symbol may "on payment of not less than \$500" secure permission from the Red Cross society to use the symbol. This privilege of dickerling in the matter is characterized as an outrage, as it seems to force persons now using the trade mark to contribute to the support of the society. At the office of Johnson & Johnson the Era correspondent was

shown more trade marks than he can remember which bore the symbol of the red cross. Besides those of the firm, and they have on hand \$25,000 worth of labels, there were red cross labels of Swedish firms who make matches, lard refiners who do a big trade with South America, wine merchants, chocolate manufacturers, and scores of others. Then there were the kinds of labels which very frequently come over in boxes sent to the consulates of England and Switzerland. The flags of those countries, as well as of Canada, South Australia and India all bear the red cross and the United States might find a pretty muss on its hands if it tried to confiscate the contents of boxes sent to the consuls of those countries. To sum up the objections to this bill the strongest word the sufferers can use is that it is "robbery" and they do not believe a test case as to its constitutionality would get far without being thrown out of court. Johnson & Johnson propose to fight the bill tooth and nail and they are leagued with the other firms in all lines of trade who would suffer by the bill, in their efforts to prevent the measure from being passed.

Edward Evans, of Evans, Sons & Co., the largest drug house in England, arrived in this city on the Majestic on Thursday morning. He is now stopping at the Windsor, but in a few days will proceed to Boston and later go to Montreal. He was met at the White Star line pier by Alfred B. Evans, manager of the Montreal house of the firm, who will go on to Boston with him. Edward Evans is a popular gentleman. He combines all the excellent qualities of the typical Englishman with the vim and dash of an American. He is prominent in English politics, being chairman of the Liberal party organization in Liverpool and is of course a warm adherent of Mr. Gladstone. This visit is practically a business one, matters connected with the conduct of the Montreal house calling him here. One matter of special interest in which he is to be consulted is the appointment of Thomas A. Hedley, F. C. S., by the Montreal house to be the representative for the sale of their specialties in the United States. The Montserrat Co., Ltd., will be given special attention by Mr. Hedley. He has heretofore had charge of the Evans laboratory in Montreal, but will soon make Boston his headquarters and home. Alfred Evans, by the way, is to be congratulated on his approaching marriage to Miss Cassilis, of Montreal. She is very beautiful and occupies a high position in the social world of Montreal.

A retail druggist, while in a William street drug house the other day, was asked how business was with him in the month of March. He made a statement that was surprising to many of those who heard it. He said that his business had fallen off \$500 in that month as compared with March, 1893, and yet he did not seem to be discouraged. A retail druggist who can look pleasant under a loss of nearly \$17 a day for a month as compared with the same month the year previous must have done an immense business in 1893. There are not many retailers who could stand such a loss. This matter naturally leads up to the condition of trade so far this year. It is the general opinion that 1894 has so far been a very poor year if it is judged by 1893. Everybody speaks of a decline in output. A city salesman for a large

house says that for him March was a fairly good month, being better than February. He always looks for good business, however, in the third and fourth months of the year.

The battle for supremacy in the tournament of the Wholesale Drug Trade Bowling Association will be worth seeing. In all probability the deciding games in the tournament will be bowled at the Tremont Hotel alleys, 663 Broadway. Whether Whitall, Tatum & Co.'s, Dodge & Olcott's, or Parke, Davis & Co.'s team wins there will be a glorious end to the season's sport and the winners will receive the congratulations of everybody. The game of last Saturday was won by Whitall, Tatum & Co.'s five, the score being as follows: McKesson & Robbins, (bowlers): Timken, Oehler, Burne, Welsch, Schuster; total, 577. Whitall, Tatum & Co., (bowlers): Burgtorf, Diltman, Leater, Mannion, Tamlyn; total, 736.

Scorer, E. A. Olin, of Dodge & Olcott, and W. G. Ahern, of Parke, Davis & Co. Umpire, W. H. Howe, of Dodge & Olcott. It is of course too early to talk about the next-year's tournament. It is said, however, that there is a question whether McKesson & Robbins will enter a team.

The Charles E. Hires Co., of Philadelphia, has rented 116 William street.

Business in the brush line is picking up, according to the Dehame-Delettre Co.

There will be a meeting of the N. W. D. A. committee for organization on April 19.

Frank A. Ruf has gone home to St. Louis. He says that business is first-class.

E. S. Read, of Atlantic City, has put in a large and very pretty Low art tile fountain.

W. A. Hover, of Denver, has been seen by many friends in this city during the past week.

T. R. L. Loud, of Merck & Co., will be seen by his out-of-town friends in a week or ten days.

Henry Wimmer, of Gates and Sumner avenues, Brooklyn, is making extensive alterations in his store.

J. A. Sangston, of Howell & Sangston, has been visiting Philadelphia and some of the New Jersey cities.

Peter Lance, the genial and popular salesman for W. H. Warner & Co., has been in town for a day or two.

Alfred H. Mason, of Seabury & Johnson, will be a guest of the St. George Society of Philadelphia on the 23d of April.

A. Amend's store at the corner of Eighth-first street and Eighth avenue, is said to be one of the finest, if not the finest, in this city.

J. Summerfield, formerly in business on Gates avenue, Brooklyn, is now manager of Vincent's pharmacy, corner of Lexington and Sumner avenues.

Maj. "Jack" Rogers, of Evans, Sons & Co., of Montreal, was in town a few days ago with his bride. He and his bride were entertained by Mr. Brent Good.

Mr. Scatteredgood, of the Philadelphia College of Pharmacy, is now night manager of Wilson's pharmacy at the corner of Broadway and Thirty-fourth street.

The Alumni Association of the Brooklyn College of Pharmacy will hold its second annual entertainment and reception at Robinson's Hall, corner of Gates avenue and Irving Place, Brooklyn, on Tuesday evening, April 17, at 8 o'clock.

Brent Good, of the Carter Medicine Co., went to Chicago recently to prosecute the three men indicted and arrested for counterfeiting Carter's Little Liver Pills.

H. Zipp will remove his pharmacy from the corner of Putnam and Sumner avenues, Brooklyn, to more commodious quarters at the corner of Madison street and Sumner avenue.

Mr. Queeny, of Merck & Co., has already made many friends in this city, although he has only been here a few weeks. His St. Louis friends will be glad to know that he is as well as ever.

They are fitting up that showcase at Tarrant's with the brushes, etc., recently sent over by Hlndes, Ltd. When the arrangement of articles is completed the show will be worth dropping in to see.

J. Kirnan has bought the Lexington avenue pharmacy, at the corner of Lexington avenue and Thirty-first street, in the city and will remove it to the corner of Franklin and Lexington avenues, in Brooklyn.

Boney's pharmacy, in the Abbey Theater building, will be fitted up in the very finest style. C. H. Bangs will do the woodwork part of the furnishing and expects to finish his work on or about the 25th of May.

There has been a general ripping up and rearrangement of things in the Astor House drug store on the corner of Broadway and Vesey street. When the repairs are completed the store will have been much improved in looks.

Tsheppe & Schur, who have three stores at present, will probably purchase a fourth one soon. It is located at the corner of Columbus avenue and Ninety-fifth street. The concern is a big one and bears an excellent reputation.

R. W. Walker, New York agent for James W. Tufts, has just returned from a visit to the factory at Boston. He says that they have more orders than they can fill. The particular call just now is for the fine onyx apparatus.

George J. Seabury, of Seabury & Johnson, has left for Hot Springs, accompanied by his eldest daughter, Miss Rena. Mr. Seabury has been a hard worker on the Republican committee of thirty and finds that he needs a couple of weeks' rest.

Edwin F. Jones, agent for C. H. Bangs, reports that business in the fixture line is picking up in great shape. He has to work up to 10 and 11 o'clock at night. He says that for two or three months this winter, however, trade was practically "dead."

Emil Utard, manager of Ed. Plnaud's office in this city, went to San Francisco about a week ago. Besides many cities in California Mr. Utard will visit Chicago and some of the other large western cities on his way back. He expected to be gone about a month.

One sees John Oehler, of McKesson & Robbins, and Mr. Ungerer, of Colgate & Co.'s chemical department at the little restaurant, on the corner of Fulton and Dutch streets, which was mentioned as quite a gathering place for drug trade men in the last issue of the Era.

The German Apothecaries' Association of New York, numbering 200 members, has decided to publish its own official organ and the initial number, in German text, may be looked for shortly. This journal will be under the management of Messrs. E. C. Gotting, Victor Kotska and Dr. Mettenheimer.

Mr. Hoffman, for many years local representative for Elmer & Amend, is about to sail for Europe with his family. It is said that it is his intention to stay there permanently. Mr. Hoffman is one of the quickest salesmen in this city, and his hold on the trade is a big one.

James S. Cushman, Jr., of 172 Ninth avenue, has taken the agency of the Beach & Clarridge Co., of Boston, for the states of New York, Pennsylvania and New Jersey. Mr. Cushman will make his headquarters in New York, and will be pleased to call upon his friends in the trade and those that are interested in extracts and fruit juices.

H. W. Jarchow, very prominent among the German druggists, as violincellist, and Peter Scherrer, well known in the mineral water trade, as base violinist, represented the drug trade at a well attended concert of the Amateur Sextette Club at the Lexington avenue assembly rooms on Saturday, April 7. This club has a considerable hold on the drug trade men of this city.

"Perry's in the Sun" and "Terry's in the World" continue to be very popular with the newspaper men, and "Charlie" is the same agreeable man he always was. Prosperity has not made him a better fellow, because that is impossible. The newspaper man who doesn't know him is new to the business. D. Graeven is still the manager of the pharmacy in the Sun building and J. Batchelder is day manager of the World store.

An old time druggist of Brooklyn passed away last week in the person of Henry P. Morgan. In 1836, when he was 14 years old, he became clerk for his uncle, William Morgan, who was a well-known figure in the drug business in Brooklyn. The uncle died in 1850 and Mr. Morgan took charge of the business, carrying it on with success until 1867, when he retired to enter other fields of wider opportunities. He became a prominent banker and was interested in many public institutions in the city of churches.

There have been many new drug stores started during the past two or three months up on the west side between Sixth and Ninety-sixth streets. The striking thing about all these stores is the elaborate manner in which they have been furnished. The neighborhood is such, however, that the druggist could not do anything but fit up his store in first-class style if he hoped to command any considerable trade and cut a figure with his competitors. That section of the city is not overcrowded with druggists.

Bell, Pollitz & Co., importers of drugs and mineral waters at 2 Platt street, have disagreed and want a dissolution of the firm. Davis & Kaufman, representing James Pollitz and Alexander Nielson, two of the partners, applied to Judge Gildersleeve of the Superior Court, for the appointment of a receiver in an action brought against Harry W. Bell, the other partner, for dissolution. It was alleged on behalf of the two associated partners that Mr. Bell had overdrawn his account \$2,000 more than he was entitled to and that he also had threatened to sell the merchandise at prices that the other partners thought were ruinous. The firm is perfectly solvent, the inventory on December 1 showing assets as \$15,500 and liabilities as \$6,100. The judge appointed Clifford Boese as receiver.

Alonzo Dargan, of Tarrant's, was perhaps more interested in the recent trouble

in South Carolina than any other New Yorker. The mayor of Darlington, W. F. Dargan, mentioned daily in the dispatches, is his first cousin. The chief of police, A. E. Dargan, is his brother. Another brother is the trial justice who first passed upon the issue of warrants. Corporation Counsel E. Keith Dargan and ex-Congressman G. W. Dargan are also first cousins. With all these relatives concerned in the "war" it is no wonder that Mr. Dargan read the daily papers with avidity. He is well posted on the inside details of the trouble in the state and can give some very interesting stories of the rise of Tillman and the cause of the governor's hold on the farmers of the state.

A remarkable experience was that undergone by John F. Aubrey, a retired druggist of Brooklyn. He left his home, 815 De Kalb avenue about four weeks ago and was not seen by his family until a week ago, when he was found wandering about the streets near his home. During the weeks of his absence from home he had been in California, but just where he went he is unable to say. He does not know why he left home, but says that some men put him on a train at Jersey City and the next thing he knew he was in Los Angeles. He had \$1,000 with him when he went away and brought back \$600 which fortunately had been sewed up in his pocket. When he left his hair and mustache were black, but when he returned they were well streaked with gray. The physicians say that he will be all right in a few days.

The forty-first meeting and dinner of the Paint, Oil and Varnish Club was held on the evening of April 12 at the Broadway Central Hotel. John A. Elmendorf, of Edward Smith & Co., presided and about thirty-five gentlemen were present. An excellent dinner was served at 6 o'clock, after which the secretary and treasurer, W. B. Templeton, presented his report, which was accepted and discussed. He reported a balance on hand of \$1,600, a higher amount than at any other time in the history of the club. He also reported an increase of members, there now being seventy-five on the list. Prof. D. L. Elmendorf, a son of the president, then entertained the members with a lecture entitled "A zig-zag journey," illustrated with very fine stereoscopic views made by him during tramps through the old and new worlds. He was loudly applauded and cordially thanked by the members.

Will Saunders, of Vallejo, Cal., has just commenced a two-years course of study at the State University of Pharmacy.

A. D. West, for a number of years with the Butte pharmacy, has accepted a position with the D. M. Newbro Drug Co. as traveling representative for Montana, Washington, Oregon and other western states.

Mr. Wilson, who has been for some time clerk in McKown's drug store at Livermore, Cal., went down to San Jose for a vacation and also to obtain another position, as the new combination in the firm of McKown & Mess no longer requires his services.

Our aim is to make the ERA the most complete and valuable of all the drug journals.

BOSTON.

Boston, April 22.—At the March meeting of the Boston Druggists' Association President Babcock, who is a believer in the idea that a little fun may be combined very profitably with business once in a while, read a sketch entitled "The Chemist's Cat." It was suggested by one written more than half a century ago, and published in London Punch, and it created so much amusement that it seems worth the while to reproduce it for the benefit of those who missed the pleasure of hearing it read at the meeting. Probably the story will remind many of C. H. Hoy's play, "A Rag Baby," in which an amiable bulldog figures conspicuously whenever there is a doubtful prescription to be tested. [See page 435.—ED.]

Among the interesting information packed in between the covers of a new state document entitled "Manual for the Use of Boards of Health," there appears the following official definition of the word "drug," in an act relating to the inspection of foods and drugs: "The term 'drug' shall include all medicines for internal and external use, antiseptics, disinfectants and cosmetics." The document goes on to state that a drug shall be deemed to be adulterated (1) if, when sold under or by a name recognized by the United States Pharmacopoeia, it differs from the standard of strength, quality or purity laid down therein, unless the order calls for an article inferior to such standard, or unless such difference is made known or so appears to the purchaser at the time of such sale. (2) If, when sold under or by a name not recognized in the United States Pharmacopoeia, but which is found in some other pharmacopoeia, or other standard work on materia medica, it differs materially from the standard of strength, quality or purity laid down in such work. (3) If its strength or purity falls below the professed standard under which it is sold.

Dealers are obliged to furnish state analysts with samples of drugs when payment is tendered, and if they hinder such officers in the performance of duty, a fine of \$50 may be imposed. It is also provided, that "whoever fraudulently adulterates, for the purpose of sale, any drug or medicine, knowing the same to be adulterated, shall be punished by imprisonment in the jail not exceeding one year, or by fine not exceeding four hundred dollars."

When it comes to traffic in poisons the Massachusetts law demands that whoever sells poison of any kind without a physician's prescription shall keep a record of such sales; this record to be open to inspection by police officers. Now, druggists do this, of course; but although "Rough on Rats" is specially mentioned among the articles which may be sold only in case a record is made, it is doubtful if the corner grocery pays any heed to this law. Let a druggist be careless or indifferent and everybody is ready to pounce upon him, but his neighbor may dispose of quantities of rat poison without much fear of being called to account. Truly, law is a queer thing.

One wise provision in the Massachusetts statutes—perhaps it is so everywhere—relates to labels of red paper, with large black letters, to be placed upon every box or bottle of poison sold. Poison, it says; and then follows an antidote for the drug,

if there be any, besides the name of the seller.

These notes are but a fragment of what might be written about the document in question. Perhaps it would be well for the druggists in Massachusetts to send to the State House for copies of the manual.

In rather an obscure corner of the city there is now being carried on an industry which may in time become one of considerable importance to druggists. At 241 Cambridge street, Mr. Thomas C. Riley has established on a modest scale a plant for the manufacture of glass soda-water fountains, and a visit to his workshop shows that his products certainly possess some distinctive features which can hardly fail to attract attention and arouse a desire to investigate. Mr. Riley uses the best heavy plate glass. Before the parts of the fountain are put together this glass is etched on one side, and skillful workmen then fill in the depressions made with gold and silver, mother-of-pearl, and a variety of bright colors until, viewed from the other side, the sheet of plain glass seems to have been transformed into a beautiful painting. It will readily be perceived that the possibilities in this direction are almost limitless, as they are when an artist stands before his canvas, brush in hand. Thus far Mr. Riley has made Venetian scenes chiefly, but for minor decorative purposes beautiful representations of autumn leaves have been used to good effect, the designs being tasteful and the colors rich and brilliant. One can fancy how inviting a fountain might be made to appear in summer if some scene from the frigid north were displayed. But this is merely the aesthetic side. When one considers the practical, it is found that the refrigerating apparatus is of an excellent pattern, that the glass can be easily kept clean, and that the front and sides can be removed by a simple operation, or renewed in case of accident. Certainly these fountains will attract much attention from the novelty attaching to them, and Mr. Riley is confident that they are soon to come into general use. One man who has been using one has duplicated his order.

Although the State Board of Pharmacy was promised that the rooms allotted the members in the State House annex should be ready by January 1, the date of occupancy appears to be as far off as it was months ago. It is a pity that a commission which applies itself so faithfully to its important work should be disappointed and hampered in this matter. However, when the headquarters are finally ready for use the examinations of the young men and women who desire to become druggists will be conducted in a more thorough manner than is possible at present, and the community will be a gainer. All this is worth waiting for.

Eighteen druggists in Malden have petitioned for liquor licenses.

An examination of would-be druggists is to be held in Boston early in May.

C. C. Bingham, the St. Johnsbury, Vt., druggist, is improving his store considerably.

A thief who stole some goods from one of Cutler Bros.' delivery wagons was fined \$25.

Edgar I. Kendall, assignee, has lately sold the stock and fixtures of a drug store in Milford, N. H.

Hon. Gorham D. Gilman is still giving to appreciative audiences his admirable lecture on Hawaii.

Of five applications for liquor licenses in the town of Medway, where prohibition is no longer in force, three are from druggists.

There was a little blaze lately in Knight's drug store, corner of Court and Hanover streets, but the damage was only trifling.

It is reported that Arthur A. Chesley, the Rosindale druggist who eloped with Mrs. Munz, returned to Boston on April 13, from Halifax, but quickly disappeared from sight.

The Massachusetts House of Representatives has refused to reject the bill providing for the granting of druggists' licenses only to pharmacists who are of good character and possess fitness to receive them.

Alfred A. Reed, who had been carrying on an extensive business in vaccine virus, in Brookline, under the name of Henry A. Martin & Sons, committed suicide early this month.

D. W. Sullivan & Co., druggists, Concord, N. H., have dissolved partnership. Eugene Sullivan will conduct the business at the old stand, and D. W. Sullivan will open a new store at the corner of Pleasant and Main streets.

Although the citizens of Maynard voted in favor of license, the autocratic board of selectmen announces that none will be given, not even to druggists. This practice is becoming altogether too common. Of what value are elections if a handful of men can nullify the citizens' act?

Cigarettes and cigarette tobacco may still be sold without let or hindrance, except as already provided for by law, as those opposed to their use failed to convince the public health committee that the little rice paper rolls were as injurious as represented, and "ought not to pass" was the verdict read by the clerk.

More money is greatly needed by the State Board of Pharmacy for the prosecution of the work for which the commission was created. It is impossible to give proper attention to all the cases which ought to be taken into the courts, with the small appropriation which the board now has at command.

The legislative committee on public health has reported "ought not to pass" on a bill requiring owners of patent or proprietary medicines to furnish the State Board of Health with the formulae used in the preparation of the same, the health authorities to analyze the medicines and report whether they contain anything of a poisonous nature.

Sessions of the Pharmacy Board were held recently, at which forty-three applicants were examined. The following-named were granted certificates: William B. Milliken, of Cambridge; William Hardin, of Boston; Patrick A. Dolan, of Natick; Ernest H. Bailey, of Northfield, Vt.; Richard F. Smith, of Lawrence; George H. Powers, of Holyoke.

James I. Knowlton, Salem; Hairabed S. Djelalian, Cambridge; John S. Alley, Marlboro; Wm. D. Sproat, Pittsfield; S. W. Munnis, Boston; J. E. O'Connor, Haverhill; Herbert A. Wiswell, Worcester; Burton N. Holmes, Waverley.

Kelley & Durkee, for many years established as druggists at the corner of Boylston and Berkeley streets, and who were the first pharmacists to go on to the Back Bay, finding their present quarters too limited for their increasing business, have just taken a long lease of the building

No. 392 Boylston street, and will soon have at that central location one of the largest and most attractive drug stores in New England.

Dr. J. Williams, a well-known magnetic healer and massage operator, went into Charles E. Griswold's drug store in Hartford one morning recently and passed through to the basement. A short time after he was found by a clerk lying on his back with a deep gash in his throat, self-inflicted with a sharp penknife. The wound was sewed up by a doctor and the would-be suicide removed to his home.

Druggist A. C. Smith, of Natick, recently appeared before Judge Mullikan to answer to a complaint for illegally selling liquor. The only witness who testified was Charles J. Wilson, employed as hostler by W. D. Parlin. He testified that Smith sold him perhaps three bottles of beer. The judge ordered Smith to pay a fine of \$50. Smith appealed, and the case will come before the Superior Court on June 1.

Bagley's Pharmacy in St. Johnsbury, Vt., exhibits a show window of much originality. A green grass mat forms the ground work, and in this up to the knees, is a healthy-looking cow, which can utter sounds, and is asserted to be free from tuberculosis. In the middle is a heap of scrap-iron, and at the other end a jug marked "wine." In the background is a big bottle of "Bagley's Beef, Iron and Wine," to serve as the answer to the rebus there displayed.

Somehow or other, any legislative committee before whom Charlotte Smith appears in advocacy of her peculiar reforms, does not appear to be profoundly impressed with her peculiar style of eloquence, and invariably reports against her proposed reforms. The last matter on which she has been wasting her eloquence is face powders, but as no one but herself appeared to complain of any serious loss of beauty through the use of powders, the committee reported "ought not to pass" on the act sought to regulate their sale.

It seems probable that the Legislature will adopt the bill which provides that liquor licenses shall be granted only to registered pharmacists having certificates from the Board of Pharmacy that they are proper persons to receive such licenses; the bill being amended so that any registered pharmacist may be considered a proper person to receive such certificate, when no complaints have been made against the applicant for such certificate, and when complaints are made, they shall be in writing, specifying the reason, if any, why a certificate should be withheld.

If the recommendations of the legislative committee on public health are adopted, all vaccine institutions in the state will hereafter be under the supervision of the State Board of Health. The committee appeared to have become convinced that there should be somebody held responsible for the proper inoculation of cows. To be sure there are a few places in the state where the work could not be done more carefully and conscientiously than it is at present; but these places will lose nothing; and it appears to be wise to have the rest of them inspected by some officer.

The annual meeting of the Alumni Association of the Massachusetts College of Pharmacy was held in the college building, corner of Garrison and St. Botolph

streets, on the evening of April 12, President J. Allen Talby, class of '78, occupying the chair. The address by Rev. Edward Benner, of Wellesley, on "The Yellowstone Park," announced for the occasion, was postponed on account of the inclement weather. These officers were elected: President, W. F. Craig, of Lynn; vice-presidents, Frank H. Carver, F. L. Decker; secretary, Prof. W. L. Scoville; treasurer, J. A. Talby; auditor, J. G. Godding. At the conclusion of the business session there was presented to the retiring president a handsome mantle clock.

James Folsom, a resident of Woburn, died on April 12. He was born in Eastport, Me., in 1819, but since early manhood had been engaged in the wholesale and retail drug business in Boston, till he lately retired from active business life. Mr. Folsom was the pioneer druggist south of Dover street to Roxbury, keeping a store at the corner of Canton street and Shawmut avenue, in his time called Suffolk street. He afterward moved to the corner of Concord street, and later engaged in the seamen's medicine chest business on Eastern avenue, at the North End. Mr. Folsom was a quiet, unostentatious man with a life full of deeds of kindness and a participant in many friendships. He was a devoted member of the Episcopalian Church, and warden at Trinity Church, Woburn. His wife survives him.

There was held in Boston a short time ago a meeting of the Apothecaries' Guild of Boston and vicinity which proved to be of the greatest interest. President Stiles made a long address which the guild very properly voted to have printed for general distribution. The organization was urged to contribute willingly and liberally to the treasury in order to carry out the well-laid plans. Mr. Henry Canning, who followed President Stiles, spoke encouragingly. Incidentally he said: "The movement is a national one, and must continue as such if success is ever to be achieved. Patience and perseverance are required, in conjunction with unanimity, to lead to the goal on which the eyes of the trade have long been set." Mr. G. W. Cobb, one of the most active members, spoke earnestly in opposition to cutting prices, asserting that all the members need to do to abolish the practice is to stand together and work diligently and untiringly. It was an interesting and helpful session throughout.

Nobody can say that trade in soda fountains is dull when the Low Co. reports the following sales to druggists: H. J. Bass, 165 Cambridge st., Boston; Samuel Siskind, 1277 Tremont st., Boston; J. R. Colby, Malden; Aaron Pratt, Brookline; J. J. McManus, Lowell; H. F. Messer, Haverhill; J. E. Bryant, Wellesley; H. L. Green, Wenham; C. F. Ripley & Co., Taunton; W. W. Clough, Medway; L. R. Davis, Northampton; J. E. Royce, Brockton; T. J. Glennon and M. F. Stokes, Lawrence; J. G. Norton, Cottage City; M. C. Farr, Augusta, Me.; L. A. Page, Camden, Me.; F. E. Lowell, Newport, N. H.; H. J. Alford, Providence, R. I.; Starr Bros., New London, Conn.; A. Yost and L. G. Landon, Meriden, Conn.; Samuel Chesboro, Willimantic, Conn.; Fassett & Messaros, New York City; Flood & Kingsley, Sandy Hill, N. Y.; G. H. Corwin & Co., Greenport, N. Y.; and also at Shelter Island Heights, N. Y.; Burton & Smith, Schenectady, N. Y.;

P. F. Guthrie, Franklin, N. J.; J. Taylor Clark, Bayonne, N. J.; A. D. Mallenon, Plainfield, N. J.; G. W. Heard, Clear Springs, Md.

How highly the late William J. Cutler was esteemed by Boston druggists was evidenced by the action of the trade when his death occurred. There was a large attendance at his funeral, and the pall-bearers were all men of prominence. Among the gentlemen present at the services were Thomas Dolliver, Joseph Burnett, Nathaniel J. Rust, and Theodore Metcalf, representing the Boston Druggists' Association; John Carr, president of the First National Bank; Judge Mason. Hon. Gorham D. Gilman, Rev. Samuel N. Warren, A. G. Weeks, of the Weeks & Potter Company; John Carter, of John Carter & Co.; Professor James N. Dunbar, of Harvard University, as well as the employes of Cutler Bros. & Co. Among the members of the family present were Edward Cutler, of St. Paul, Minn.; Abram Cutler and Charles Cutler. The coffin was covered with flowers and the chancel was filled with palms and many handsome floral pieces, among them being arches from the First National Bank and the employes of the firm of which Mr. Cutler was a member.

At a meeting of the wholesale druggists of Boston the following resolutions on the death of Mr. Cutler were adopted:

"We are reminded, by the very sudden and unexpected removal of our friend and associate, William J. Cutler, from this life to that of the immortal life beyond, of the great uncertainties that surround us."

"That as the active business representatives of an honored house for many years he was widely known and esteemed."

"He was a living illustration of devotion to the high principles which were the foundation of his faith and character and which dominated his life and conduct."

Therefore Resolved, "That we, wholesale druggists of Boston, unite in expressing our appreciation of the high character of the late William J. Cutler, and our sense of loss in his being taken from us."

"That in the great mysteries of life, we most sympathizingly commend his family to the great All-Wise, who doeth all things well, and in whose keeping our beloved ones are always safe, though for the while separated from us."

"That these resolutions be transmitted by the officers of this meeting to the members of his family."

Resolved, "That as a token of respect to the memory of our late associate, William J. Cutler, we close our places of business during the hour of the funeral."

Vancouver, B. C.—Trade is quieter among the druggists than at any previous time in the history of British Columbia. Summer is here and the perfect dry weather keeps drug dispensers from desponding too much.—J. Harding Kamloop has assigned for the benefit of his creditors. He has been allowed an extension of eighteen months.—John Reed, one of the most prominent druggists of Vancouver, B. C., has been obliged to sell out, J. F. Jaek, of Victoria, B. C., being the purchaser. The business is being continued in Mr. Jaek's name. Mr. Reed has taken a partnership in the drug house of Messrs. J. Sinclair & Co.—Messrs. McDowell & Co. have sold the stock and good will of their branch store in Vancouver to J. K. Sutherland, formerly an employe of the firm.—Embryo druggists are not very numerous in British Columbia. At the semi-annual pharmaceutical examinations of the province just concluded one candidate presented himself. He was plucked.

PHILADELPHIA.

Philadelphia, April 18.—For some time there has been considerable trouble among the glass lamp workers of Whittall, Tatum & Co., but an agreement was entered into between the firm and the national officers of the Flint Union a few days ago which was perfectly satisfactory to all concerned. Every one of the old hands was taken back and the prospect for steady work for the balance of the blast is excellent.

At a meeting of the board of directors of the Philadelphia Drug Exchange, held on April 11, the following resolution in reference to the death of Edmund A. Crenshaw, prepared by one of the members, was adopted:

"The death of Edmund A. Crenshaw adds an honored name to the list of our departed associates—a list that has so lengthened within the past few years, as to have become too suggestive and impressive. When the admonition to 'say nothing but good of the dead' may sometimes lead to fulsome flattery, and adulation undeserved by any, surely the friendly critic may be pardoned, if he should veil all imperfections, and point alone to that which, in its goodness, and purity, may improve, encourage and instruct."

"It is most gratifying to have the privilege, which is mine by your courtesy, to express the very high regard in which Mr. Crenshaw was held by me for many years, and to feel that my estimate of his character is not exaggerated. Mr. Crenshaw died February 27, 1894, at the age of 67. If criticised as a type of manhood he was of distinguished presence. If judged as to deportment, his manners were most engaging, being at once dignified, amiable and affable. If examined as a man of business, he was governed by principles of rectitude and honor. In his family relations he was a most careful and responsible of husband and father, he was kindly, considerate and indulgent."

"In attention to religious affairs, he was faithful and constant, and assisted by his daily noon devotions of his professions. That the love of such a man will be felt, and for many years, by the community in which he dwelt, by his partners in business, by his associates in church work, by all those, in fact, with whom he came in contact, and especially his immediate family, need hardly be asserted, for from the standpoint of such a character much may be viewed, there is much to respect, much to admire, much to love."

"So that, while the life of no man can be recognized as 'perfect' and 'complete' while we may no further seek his merits to disclose, it can be said, briefly, but in all sincerity, that the name of Edmund A. Crenshaw, for years to come, will sum up, for most delightful memories."

Messrs. John M. Maris & Co. report that their business since January 1 has been very good, and that their sales show a very good increase over the corresponding period last year. Their glass engraving department is working to its utmost capacity on orders, and they are again compelled to increase it, and are at present making the necessary alterations. This firm has added a number of new desirable styles to their already large line of goods for the soda fountain, and carry a very full and complete stock of these goods. They have several new specialties that they are about to place on the market, and which the trade may soon expect to see advertised.

The Apothecaries' Union has at last opened its new headquarters, 610 Arch street. It has the whole first floor and basement, and as the building has a good depth there is a splendid opportunity to display the goods. The store has the appearance of a large wholesale drug house. It is the intention of Mr. Frank R. Rohman, the general manager of the union, to have displayed in various positions the different signs of the various drug houses

with which they deal. At the present time there is only one such sign displayed.

The Distillers' and Cattle Feeders' Trust is not as bold and as domineering as it has been. Whether this is because the courts have made an impression or that the general dealer has begun to think for himself and purchase his goods wherever he pleased without first having gained the consent of this august body, it is hard to tell. It appears now that the trust is willing to sell its products to all those who are desirous of having them and no questions are to be asked. The goods are to be sold with or without the rebate voucher, which has been the stumbling block for some time. It is also stated that rebate vouchers are being cashed as they mature and without protest, when the presenters are known to have secured a portion of their recent supplies from independent distillers.

George P. Connor is making preparations for an extensive soda water business this summer and he believes that this season will be the best yet this trade has seen for some time. He bases his belief on a good trade owing to there being no fair this year, and as money is somewhat scarce people will stay at home and alleviate their thirst during the summer months with the cold sparkling drink, which invigorates. Mr. Connor is of the belief that a drug store can be used for more than to sell drugs alone and with this idea in view he frequently offers for sale such novelties as he thinks will attract the public. Recently he did a large business in disposing of a number of Turkish sabers, and now he is engaged in supplying every household with a mascot in the shape of a horseshoe, which is a fac-simile of those worn by some one of the famous trotters. He says he intends to sell anything in his store that he thinks can be disposed of, as he believes it is a good plan to get out of the old conventional way of only dispensing drugs.

Charles E. Hires left this week for Chicago to oversee the starting of his new office and the getting out of the necessary formulas for the spring and summer trade. His company in this city is very busy getting out the root beer for the spring trade and the prospects are better than ever before. Owing to the demand for root beer he is contemplating the working of a day and night force. Ever since the manufacture of root beer by this firm they have had more or less trouble in getting their goods properly carbonated into bottles, and the firm is now negotiating for a plant of its own. Mr. Hires, besides being connected with this firm, is a bank director and a director of the Philadelphia Drug Exchange, which is taking a prominent part in this city in securing a memorial building in honor of the late George W. Childs. On April 11 Mr. Hires delivered an address before the Friends' Social Lyceum at the Friends' Meeting House, Seventeenth street and Girard avenue, his subject being "George W. Childs' Life Work an Inspiration to Struggling Young Men."

The J. P. Miller Drug Co., of this city, which has branch stores in Baltimore, Md.; Chester, Pa.; Easton, Pa.; Harrisburg, Pa.; Reading, Pa.; Trenton, N. J., and Wilmington, Del., all of which are classed by the N. W. D. A. as rate-cutting establishments, it is stated is to become more aggressive and enter into the field occupied by the wholesalers.

This pleases the wholesale dealers, as they are now in a position to notify the proprietors of proprietary goods that the house does not maintain prices and that they, according to their agreement, must refuse to sell it.

The elaborate exercises incident to the commencement of the seventy-third graduating class of the Philadelphia College of Pharmacy were held last week, and were of an unusually interesting character. Three days, April 11, 12 and 13, were filled with events in which both graduates and professors took prominent parts. The graduating class numbered 183 members—the largest which has ever been at the institution. The thirtieth annual reception of the alumni association began the festivities, for those who passed through the ordeal of examination, which lasted from March 30 to the evening of March 27, certainly did feel festive. The affair was a brilliant one socially and full of instruction and entertainment, to say nothing of oratory. It was held on the evening of April 11, in Association Hall. This is the time when the graduates' lady friends are very numerous, almost more so than on commencement night, and this year's gathering was no exception in that respect. David H. Ross, class of '73, presided, and welcomed the guests in a pleasant manner. He, with Edward C. Jones, William E. Krewson and Dr. J. L. D. Morrison, formed the committee on reception. The Zeta Phi Glee Club's songs were a feature of the programme, and many hearty encores were in order. Howard P. Ziegler, of Reading, Pa., delivered the class oration in excellent style. George Louis Kuppel, of Zanesville, O., told facts about the class' history, which were new to many and surprising to others. Walter Joseph Garver, of Hagerstown, Md., prophesied and foretold many wonderful things he anticipates will happen to his classmates. There was also a class poem, for which David Walter Thomas, of Spartanburg, S. C., was responsible.

George W. Lufte, of Salt Lake City, was the lucky young man who was presented with the alumni gold medal for having made the highest general average in his studies, and David L. Greenwalt, of Chambersburg, Pa., got a certificate for the best average in the junior class. Certificates for the best examinations were awarded as follows: Pharmacy, John Culley, Ogden, Utah; chemistry, Charles E. Hamilton, New Lisbon, O.; materia medica, Charles C. Manger, Booneville, Mo.; general pharmacy, Charles Jeffries Black, Chambersburg, Pa.; operative pharmacy, Louis Reese, Hazelton, Pa.; analytical chemistry, Edward Hodgson, Norfolk, Va., and specimens, Frank H. Atkins, Lebanon, Pa. August G. Wagner, of Germany, was awarded a special prize for the best collection of botanical specimens. Certificates were presented to the members of the microscopy class by George M. Berlinger, their instructor. Secretary William E. Krewson called the roll of new members—183 in number—to whom the alumni certificate was presented.

The business meeting of the alumni association was held at the college in the afternoon, David W. Ross, president. He read his annual address, which was pregnant with suggestions for ways and means to advance the institution's interests. Reports of committees were considered, showing that much effective work

had been done during the current year. It was reported that nineteen members had died since the date of the last annual meeting.

The election of officers resulted in these gentlemen being chosen: President, William L. Cliffe, '84; first vice-president, Jacob S. Beeton, '78; second vice-president, Dr. J. L. D. Morrison, '88; treasurer, Edward C. Jones, '64; secretary, William E. Krewson, '69; corresponding secretary, Joseph Crawford, '81; trustee of sinking fund, Thomas S. Weigand, '44.

The class of '81 held a reunion at the Hotel Metropole on the evening of April 10, which was a happy occasion. It included Profs. Moeric, Ryan and Lowe, besides others who are brainy and active in college life. About thirty were present at the banquet, the faculty being among the guests.

The complimentary banquet tendered the senior class and officers of the college by the professors was a time for good cheer, good speeches and mutual congratulations that tempests and trials—which had been much magnified by the students—were buried in history. Long tables were arranged in the college museum on Thursday evening, April 11, and a royal time was enjoyed. Of course all the professors made speeches, as did the prominent classmen. President Aughenbaugh, of the Zeta Phi Society, had an assignment from his associates which was performed in a graceful manner. He presented a fine crayon portrait of the late Prof. John M. Maisch to the college. The act was much appreciated by the faculty. There was another incident of importance not on the programme. The boys quietly made up a subscription of \$70 as a donation to the alumni association towards paying for the new electric plant about to be placed in the college building. It was late when the banquetters broke up, and everyone felt that the professors had extended genuine hospitality towards them. One hundred and seventy covers were laid.

Fair weather smiled on the graduating class on commencement night, April 12, and the big Academy of Music was filled with friends of the ambitious young men, from pit to dome, including three galleries. At 7:30 o'clock Bastert's Orchestra rendered some beautiful selections before the entrance of the graduates on the stage. Then the senior class entered—183 strong, wonderfully arrayed in cap and gown. The boys remained standing until everyone was in his place, when the college cheer was given with lung-power that was unimpeachable.

Prof. Joseph P. Remington, as dean of the college, called the roll, and, as each student walked forward, he saluted. When a triangle was formed with about forty-five men, President Charles Bullock conferred the degree of graduate in pharmacy and presented the diplomas. Four sets were needed before the class was graduated.

Prof. Sadtler gave a certificate of proficiency in chemistry to Edward D. Helme and David T. Werner, and President Bullock conferred the degree of master in pharmacy (Ph. M.) on Robert Shoemaker, of the firm of Robert Shoemaker & Co., this city; Professor Albert E. Ebert, Chicago; Dr. Charles Rice, New York, and Dr. Edward R. Squibb, Brooklyn. The award of the prizes was then in order. These were the fortunate ones: Maisch memorial prize, a Zentmayer

microscope, given in his lifetime by the late Professor Maisch as the materia medica prize, and now being presented by his family, was received by William H. Whitcomb, of Michigan. Hon. George W. Kennedy made the presentation speech. The pharmacy prize of a gold medal, offered by Dean Remington, was captured by William C. Aughenbaugh, of Maryland, the donor presenting it in person. The chemistry prize of an analytical balance, given by Professor Sadtler, was presented by him to Charles C. Manger, of Missouri. Professor Henry Trimble's analytical chemistry prize of \$25 in gold was presented by him to John Culley, of Utah. The John M. Maisch prize of \$20 in gold, offered by Mr. J. H. Redsecker, of Lebanon, Pa., was given to George F. Banch, of Ohio. Louis Reese, of Pennsylvania, was presented with the operative pharmacy prize, \$25 in gold, donated by Mr. Charles L. Boggs, Charleston, S. C., Mr. James T. Shinn speaking for Mr. Boggs. John Culley got another souvenir in the way of the handsome prescription balance which was the H. J. Maris theoretical pharmacy prize. Dr. A. W. Miller presented it. The J. S. Robinson prize for the best examination in theoretical and analytical chemistry was presented to Charles C. Manger, by W. Nelson Stern, for the donor.

After the orchestra took advantage of another opportunity, the valedictory address was delivered by Professor Samuel P. Sadtler, Ph. D., who was listened to with close attention. What he said was filled with forceful ideas.

When the formal exercises were concluded, hundreds of ladies and gentlemen met the graduates in the foyer to extend congratulations. Flowers, canes, books and valuables of all sorts were received by scores of the boys, and many left the academy loaded down with gifts.

DETROIT.

Enquiry among the retail druggists of Detroit has brought out a diversity of opinion relative to the ultimate success of the general cut-rate policy which went into effect some time ago. At present a large number of druggists are advertising to sell patent medicines at cost, and while admitting that a slight increase in sales is being made, they cannot see exactly where the profits are coming from. They are beginning to consider the advisability of adopting some other method in bringing the regular "cut rate" stores to assignments.

The meeting of retail and wholesale druggists which was reported as having been held in room 422 of the Hammond building for the purpose of perfecting a scheme to regulate the sale of proprietary articles and keeping them out of the hands of the cut-rate people, may possibly have occurred in that locality, but enquiry made among the prominent retail druggists and wholesale houses has failed to elicit any reliable information as to what was done that evening or who were the parties present. It is now positively stated by many that in their opinion the whole thing was a "fake" sprung by an ingenious cut-rate proprietor upon some active reporter and subsequently used as advertising capital. In view of the fact that no authentic information can be obtained from a reliable source to show that any concerted action was undertaken on the part of the druggists,

there is reason to believe that the general opinion is about right.

Detroit College of Medicine, department of pharmacy, in conjunction with the department of medicine, held its commencement exercises in the Auditorium April 19. The degree of Ph. G. was conferred upon the following members of the graduating class in pharmacy: E. R. Borley, Miss Ida E. Courville, A. E. Johnson, E. S. McColl, N. G. McBean, R. H. Reynolds, H. Shannon and H. B. Ward. Prof. F. H. Frazer delivered the address on behalf of the pharmacy department. Mr. Shannon, having received the highest standing in all of the courses, was presented with a gold medal. After the exercises in the Auditorium the members of the graduating class and the faculty repaired to the Hotel Cadillac where a banquet was served.

B. M. Patterson, of Grunow & Patterson, left on the 24th for New York, accompanied by his mother and sister. On the 26th the party sailed for Scotland, where, and in England, a two months' visit will be passed. B. M. will, of course, run over to Paris. Before his departure some thirty or more of his friends, bachelors and benedicts, met at the house of Lawyer James Swan for a "smoker," and after cards, refreshments and tobacco in all forms, were favored with a speech from brother Patterson in acknowledgment of a parting gift of a pair of finest field glasses. His friends took this prediction that the young man may see all there is to see while he is away.

W. J. Moore, of Sagnaw, has put in a new soda fountain. It is built of onyx and is of the latest pattern.

Perry Weed, until lately manager for W. D. Harshaw & Co., of Pontiac, will open a new store for himself at that place.

Dr. Plessner, of Bay City, formerly connected with the laboratory of Farrand, Williams & Clark, is returning from a winter's visit in Italy.

Arthur Loranger, of Loranger & Fournier, has spent the winter in Algiers, Africa. He is expected to return some time during the early spring.

Dr. G. J. White, of Jackson, now located in the Hibbard House block, expects to get into his new store near the depot about April 15. Z. W. Waldrun & Co. will occupy the Hibbard House corner May 1.

E. J. Kennedy, for three years past professor of practical and theoretical pharmacy in the department of pharmacy, Detroit College of Medicine, has resigned. Mr. Kennedy will move to New York city.

Arthur Mummery, formerly in the employ of Frank Ingils, of Detroit, will open a new drug store at Ann Arbor on May 1st. Mr. Mummery has selected a desirable location and is securing the necessary stock and fixtures.

Fred C. Loranger, managing proprietor of the Loranger pharmacy, has spent several days in the upper part of the state. He has decided to turn the rear end of the pharmacy into ice cream parlors, and during the past week has had the necessary alterations made.

Dr. P. V. Felt, of Belleville, lately purchased the drug store formerly owned by Felt & Cobb, at that place. As a mistake was made in reporting the transfer in a former communication considerable annoyance has been caused the doctor. A. L. Smith, who sold out to the late firm, is now a student in the Detroit College of Medicine and is not connected with the business.

BUFFALO.

Buffalo, N. Y., April 22.—There is no change for the better in business. Druggists, like other people, are waiting for the tide, and they will not flourish till it comes. Buffalo druggists are holding on well and will do so till there is improvement, then they will flourish again. Like every other business, drug specialties do not net much of a profit now. The hot soda dispensers say that if it were not for the theater patronage it would hardly pay expenses, but with the little crowd that comes in at 11 p. m. and the other things that the hot soda people buy, there is moderate profit, that is, so long as only a few druggists are running fountains.

When this locality falls in a whole season to capture any opium smugglers there is reason to believe that the crooks are smarter than the detectives. It has turned out so in this instance, though the authorities are once more ahead. On the night of April 7th Inspector Dirnberger, of the custom house staff, with the aid of several assistants, located about 300 pounds of opium in a Chinese store on North Division street. The detectives had seen most of it brought from Black Rock by three men, who were captured on the spot. They gave their names as Charles Kennedy, Edward Patterson and George Henderson. Two are known as all-round crooks and the other is said to have been at one time a barber and hotelkeeper or anything else convenient, at Windsor, Ont., where he learned the smuggling business. The names are fictitious. There were several Chinamen picked up next day after the raid, though they all fled at the time and escaped. At one time there were nine of them along with the three principals in the jail, but some have been released. An interesting part of the find was a package of 182 opium stamps which had been soaked off other cans for use a second time. Nearly all of them bore date of October 25, 1893, when these same people bought a lot of opium at auction which had been seized. The gang hadn't had time to paste them on the new consignment. The stamps at \$6 each would be worth \$1,092. Opium is worth \$7 a pound in Canada, yet with the \$12 duty added the last lot sold at auction brought only about \$12.50, so there is money in it for a smuggler fence to buy back his own captured goods. The Chinese store implicated is known as the Quong Wing Chong Co., and is said to have branches all over the country, even in British Columbia, where most of the opium is landed from China.

It is thought that the last set-to between Health Physician Wende and Chemist Vandenberg has taken place and the city is tranquil again. They joined issue before acting Mayor Richmond on April 5th and fought out the question of the relative disinfecting power of chlorine and bromine. Dr. Wende had already bought a quantity of the latter with which to disinfect the big reservoir and, of course, he stood by it. Dr. Vandenberg putting up a strong case for liquid chlorine. He presented letters from experts strongly advocating chlorine in preference to bromine, and even offered to buy the bromine of the city if the cheaper chlorine was used. The Mayor stood by the health physician, however, and next day the bromine was sprayed into the reservoir. The water has since been let in, and the

city water supply is again supposed to be free from typhoid germs. The scare has been of great value in one regard at least. It has shown the medical "experts" how little they really knew of bacteria and disinfectants. After the july debate between Drs. Wende and Vandenberg took place one of the local papers wrote the battle up as a sparring match, with Dr. Wende as the Bromine Boy and Dr. Vandenberg as the Chlorine Cyclone.

Low's Art Tile Soda Fountain Company is moving out of its narrow quarters on Pearl street and locating in the commodious Jewett building at Perry and Mississippi streets, where heat and power are furnished in the lease. This will make a large saving and the establishment feels that it no longer needs to be located at the business center, for the need of a show room is now over. When people come to the city to look at the work all that is necessary is to take them to some drug store and show them a fountain in operation. Considering the fact that druggists are poor this year, fountains are selling well. The company has five salesmen on the road. It has dropped special manufactures for the present and is making only regular fountains. The change in the style of placing orders is noted as very embarrassing to the trade. In flush times the rule was to order a fountain as early as February if one was to be bought for the coming season. Now a druggist begins by thinking about it. Then he waits till March, then till April, then he puts in his order and wants the fountain next week.

John T. Sanford, who came from Ithaca to attend the Pharmacy College and remained here in various druggists' employ since graduating, has engaged at Liebert's pharmacy on Genesee street.

At the burning of the Hamlin grape sugar and starch works on April 12th a great amount of chemicals was destroyed. In one room there were thirty tanks of sulphuric acid, said to contain thirty tons each. Explosions were looked for, but none occurred. The entire loss from the fire was close to \$1,000,000.

The Hudor Lithia Company, one of the mineral water establishments which profited by the late typhoid fever scare, has elected the following officers: President, Samuel C. Rogers; vice-president, George M. Bailey; secretary and treasurer, A. B. Wright.

Dr. P. Harold Hayes, who has made his name known all over the country as a specialist in asthmatic diseases, died on April 9th, aged 70. He was a graduate of the Jefferson Medical College, Philadelphia, in 1848, and spent several years in New York Hospitals. From 1875 to 1885 he practiced medicine in Binghamton. He then moved to Tonawanda, where he remained till two or three years ago, when he came to Buffalo.

At the first April meeting of the County Board of Pharmacy nine applicants were examined for licenses. There were no licenses granted without examination. The certificates of three licensees from the March examination were signed and delivered as follows: Stephen M. Spryszynski, who will locate a store in the Polish district at Peckham and Townsend streets; Edgar J. Foote and Juman H. Howes, whose places of business were not known to the board. Mr. Howes gets an assistant's license, the others a full pharmacist's.

CINCINNATI.

Cincinnati, O., April 22.—The leading theme among druggists and physicians here is the erection of the large office building, which was briefly referred to in the last number of the Era. The objects of the building are many and it will be a decided innovation. The success of the undertaking now seems to be assured and quite a number of well-known pharmacists are laying their lines to secure the first floor of the building. The representatives of two surgical instrument houses are also endeavoring to secure quarters in the structure. The encroachment upon the resident portions by the increasing business interests has crowded the doctors from one place to another until this plan has been hit upon as affording a chance for a permanent location. The proposed structure will be provided with every convenience for the accommodation of its tenants. In addition to the druggists on the first floor, will be a first-class optician, surgical instrument maker, and kindred business men. The advantages claimed for this sort of a building are that it will be known exactly where the physicians may be found. They will be all equally easy of access, and the apartments where the patients are to be brought for special treatment will be especially equipped for the purpose. As far as the success of the plan is concerned the occupancy of the building by the doctors would be practically permanent and the income almost sure. A number of the foremost local physicians are elated over the prospects for success of the venture. Among those who are deeply interested in the project is Dr. Thomas M. Stewart, who has given the matter careful study. It is said that Dr. John C. Otis, Wilmot Hall, Louis Helster, Dr. Weatherhead and other prominent pharmacists are not adverse to presiding over the proposed pharmacy which is to be established on the first floor of the building.

Dr. James Y. Cotter, the veteran druggist, is dying at his home from laryngitis. Two weeks ago the doctor was brushing his teeth, when one of the small bristles of the brush came out and slipped down his throat. He attempted to get it out, but was unable to dislodge it. He soon noticed a slight inflammation in his throat that was intensified each day, until it had now developed into laryngitis. He has been in bed now for more than a week, and his death is expected at any moment. The trouble takes a peculiar turn at times. He is so weak as to be unable to cope with one phase of the disease, and during these periods an inability to properly inflate the lungs causes him to lose his breath. It is feared that he will die in one of these spasms. Dr. Cotter says he is sure that the bristle is out of his throat. The attending physicians have made a search for it and have been unable to locate it. While they will not give it out at this time as a decided opinion, there is a suspicion that the bristle has gone into one lung. The accident is without precedent in this city and has caused no end of talk among the druggists and physicians.

Druggist George Smaltzer, who lives in Covington, is telling all about a ghost that he saw near the corner of Scott and Pike streets. There is a large brewery in this vicinity. Away back before the war one of the attaches of the brewery

used to spend a large portion of the evening in playing sixty-six with friends. The game some nights would last until rather late. Several years ago this man joined the silent majority and now comes the statement that his figure is seen every night at 12 o'clock playing the time-honored game of cards. Smaltzer and several of his friends, who are possessed of strictly temperate habits, claim that the story is true in every particular.

The twenty-second annual commencement of the Cincinnati College of Pharmacy was held at the Scottish Rite Cathedral on Wednesday evening, April 18. The pretty and spacious building was a blaze of glory. The colored lights, interspersed with Chinese lanterns leading from the street to the main entrance, formed a triumph in decorative art. The main auditorium was prettily embellished with flowers, potted plants, flags and bunting, and was thronged with a select audience. A corps of competent ushers handed the crowd and everyone was looked after. Extra chairs were placed in the aisles and Weber's superb orchestra was stationed at one side of the large stage. Seated upon the stage were President J. U. Lloyd, Secretary A. W. Bain, Corresponding secretary W. Simonson, Treasurer C. T. P. Fennel, Trustees Geo. Eger, H. H. Hoberg, Julius Gregor, T. L. A. Greve, A. Meininger, Louis Klayser, John Ruppert, Otto E. Betz, Albert Wetterstroem; Profs. Julius H. Eichburg, Adolph Leue, Otis L. Cameron and others.

The exercises were very interesting and lasted from 8:30 p. m. until 10 o'clock. Diplomas were awarded to the following students: Robert C. Tarbell, Edward F. Manning, Charles F. Strelch, William L. Ritter, Arthur L. Marchlein, Mrs. L. S. Schreck, Otto E. Kistner, Allen M. Moon, John L. Greenwood, Louis L. Augert, John G. Oesper, H. Fred Curtis, Miss Martha L. Beers, Louis A. Ribar, Paul Elchert, Dorsey C. Ross, John J. Jobes and Fred Roettig. At the conclusion of the commencement exercises the banquet hall in the rear of the main auditorium was repaired to. Here is where the festivities reached the 33d degree of gaiety. Every one seemed intent on having a good time, and many good-natured jokes were cracked. After the sumptuous feast had been enjoyed those present repaired to the ball room, where the light fantastic was enjoyed till the wee small hours. Much of the credit for the success of the festivities is due to a committee of the following gentlemen: C. T. P. Fennel, A. W. Bain, Louis Klayser, Theo. Wetterstroem, Charles J. Kaefer, Rud. Falk, George Eger, Jr., Charles Wagner and William Simonson.

Ball Room Tips.

Andy Bain is a waltzer from Waltzerville.

Prof. C. T. P. Fennel is the prize polka dancer.

Louis Klayser and George Kyllus enjoy quadrilles.

Louis Sauer went through the menu from soup to nuts.

George Eger and his son, the doctor, danced in the same set.

John Ruppert was the gayest of the contingent from Price Hill.

Herman Hoberg enjoyed the dance and didn't miss even one number.

Wilmot J. Hall told the boys all about the merits of Forbes' Diastase.

Dr. John C. Otis and Dr. Chas. Woehner shook hands and talked politics.

Albert Meininger told 'em all about his elegant new store in Cumminville.

Louis Kuswick and Will. Wagner looked on but refused to join in the dance.

Billy Hiale told Cy Calvert a few things about the Main street drug exchange.

Peter Nodler, of Covington, was not there, but some of his neighbors were.

Julius Greyer, the prize bowler, was in his element and danced with much zest.

Julius Eichberg wore a white chrysanthemum and mingled among the ladies.

Ed. Dehner was telling the boys all about his great discovery for headache.

Albert Wetterstroem knew all the pretty girls from his ballwick in the twenty-fifth ward.

Otto Betz showed the east end people through the building and smiled as he went.

Dr. Otis L. Cameron took dancing lessons in his young days and he was right at home.

Otto Stein and Albert Vogeler were seen among the throng shaking hands with their friends.

The local druggists are nearly all sufferers from the gout. The pharmaceutical banquet explains all.

Druggist Joe Fuldner is out again.

The local slot machines are still doing a land office business.

Frank Dieringer, druggist at McMicken avenue and Brown street, is back from an extended trip to St. Augustine, Fla., much improved in health.

Wilmot J. Hall has returned from his southern trip much improved in health. He tells glowing accounts of his hospitable treatment by his southern brethren.

Fred Schanzle, the well-known young pharmacist who clerked for Druggist Julius Steffin for several years, will soon open an elegant drug store at Elmwood Place.

Herman Hoberg, the clever pharmacist at Wade and Cutter streets, who was joined in wedlock with an estimable young lady about a year ago, now lives in Clifton.

Charley Durr, until a short time ago a clerk for Arthur Helmenan, is now behind the prescription counter at Koehken's pharmacy, corner of Fourteenth and Mill streets.

Ben Hubbard, representing W. H. Schiefel-felin & Co., and Calvin A. Qulmbly, of the National Papeterie Company, were mingling among the druggists for several days during the past week.

Mrs. Dr. Withrow, wife of the president of the board of hospital trustees, passed peacefully away on April 7. The bereaved husband has the heartfelt sympathy of all of the pharmacists in the city.

F. X. Schmitter, the clever pharmacist at Findlay and Linn streets, has a new soda fountain in his store. He promises to surprise the populace with some of the new drinks that he will "spring" in the near future.

G. E. Lamb, who has managed Hall's drug store at Fourth and Elm streets for several years past, is convalescent after a severe seige of typhoid fever. He was confined to the City Hospital for almost three months.

The old Hermance drug store in Covington has been purchased from E. W. Kneeseby by Messrs. Kavanaugh and Davidson, who will make extensive improvements in the place. The store will have new fixtures and a new soda fountain.

Alfred Heilmann, the popular druggist, was one of the fortunate graduates at the Cincinnati Medical College. He captured the second prize for the best general examination. His average was 91 per cent.

A. Diebold, the druggist at Woodburn avenue and Madisonville Pike, Walnut Hills, has just purchased a \$5,000 soda fountain. Mr. Diebold has also put in an elegant lot of Bang's fixtures and now has one of the nicest pharmacies in the west.

Old stringency has certainly dealt kindly with J. F. Kutchbauch, the well-known Cumminsville druggist. That clever pharmacist has just completed a handsome new store room at Blue Rock and Lake-man streets, into which he will move in a few days.

Edward Peek, the well-known pharmacist of Covington, our sister city across the river, has just been appointed a member of the Board of Police Commissioners. Edward is a thorough business man and doubtless knows a thing or two about municipal affairs.

Edward Kipp, the affable young pharmacist of Camp Washington, mourns the death of his wife, nee Lucy Snyder, which sad event occurred on April 9th. Mr. Kipp had been married just one year and has the sympathy of a host of friends in his bereavement.

'Tis rumored that some of our leading pharmacists are interested in the new Rosedale Agricultural and Racing Association. Some of our "pill rollers" are getting to be real sporty boys, but it's a cinch their wives are not "on" or there might be some trouble.

John Keeshan, the veteran druggist, who, it is said, has passed the three score and ten mark, is becoming quite a horse fancier. "Uncle" John can be seen almost every pleasant Sunday afternoon taking a spin out the avenue behind a team of spirited trotters.

T. S. Jordan and John Rupert, of Price Hill, were the happiest druggists in the city last week. Their visages were continually wreathed in smiles and it was all on account of the new Price Hill electric cars. Theo. and John were strong advocates of rapid transit.

Ferdinand Ott has purchased the old-established drug store in Covington recently conducted by E. F. Cantler. The store is to be entirely remodeled and the new proprietor expects to have one of the nicest pharmacies across the river when the work of renovating and remodeling is completed.

Miss Pope, a clever saleslady representing Hudnut's New York pharmacy, was in the city several days last week taking orders for perfume. A female drummer is a novelty in these "diggins," but it must be said that Miss Pope made a decidedly favorable impression among the local pharmacists.

John Fallon, druggist at Fifth and Locke streets, is now the picture of a well-fed comedian. He has given his mustache the cold, cruel shake and he now claims that he has just realized that the hirsute appendage interferes with the expression of the face, in which the mouth is a prominent factor.

It is rumored that W. H. Adderly, the Mt. Auburn druggist, is soon to start a branch store on one of the hill tops. Brother Adderly is a thorough pharmacist and some of his proprietary remedies are sold in all parts of the country. He is also very successful in his own private

business and his new store will doubtless be a success.

There are two clever druggists doing business on opposite street corners in Cumminsville, and a short time ago one of them put out a sign with big letters bearing the inscription, "Deutsche Apotheke." The following day his wide-awake neighbor put out a large legend as follows, "American Pharmacy."

Hard work seems to agree with Druggist Arthur Heilmann. He allowed his clerk to leave his employ and now does all of the compounding and dispensing himself. He seems to thrive under the strain and the confinement seems to agree with him. They say he's going to get-oh, well, it's his nose of our business.

Harry Striethorst, the well-known drug clerk, had occasion to visit a rural cemetery the other day. He claims he saw the following inscription on one of the tombstones:

Here lies our Mary Ann at rest,
Pillowed now on Abram's breast;
It's rather nice for Mary Ann,
But somewhat rough on Abraham.

George Eger, Jr., was one of the brightest graduates at the Ohio Medical College when the examination is a criterion to go by. He captured the gold medal for the best drawing in anatomy, Professor Conner's prize, as his sketch was one of the best seen at the college for years. His father, the druggist, is now throwing bouquets at his physician-son.

George Budde, the hustling city salesman for the Stein-Vogeler Drug Company, was receiving congratulations from his friends a few days ago on his success in getting the second prize of \$50 for getting the second largest number of subscriptions to the Era. George captured a gold watch from a chewing gum manufacturer a short time ago for selling the largest amount of goods of any drug salesman.

CLEVELAND.

The Cleveland Medical Society has been incorporated.

Umbenauer & Co.'s drug store at Hicksville was raided by burglars.

G. L. Hechler has been elected a member of the Chamber of Commerce.

Jesse Kramer, the Wooster druggist, will wed Miss Lizzie Talbot April 19.

The Enterprise Oil Co., Alliance, is a new corporation with a capital stock of \$50,000.

Chemist R. W. Dickman, of this city, returned from the Columbia mine in Arizona, whither he was sent on an inspection trip.

Among the Cleveland exhibits at the pure food exhibition deserving special attention is that of the Globe Chemical Co. It is managed by R. J. Fuller.

Harry Johnson, whose depositions upon the drug trade have been fully detailed in the Era, was sentenced to the penitentiary for two and a half years.

John T. Meare, Chicago representative of the Sherwin-Williams Co., and W. H. Hogarth, a New York representative of the same company, were recent visitors.

W. H. Park, the Elyria druggist, presented to the Lorain county historical society a volume of the Literary Magazine, published at Elyria 1833-4 by C. A. Park and A. A. Bliss.

Maj. Palmer has introduced a bill in the Ohio legislature reducing the state cigarette tax, wholesale from \$300 to \$25,

retail from \$100 to \$20. The enactment of this measure would practically re-establish the status prior to 1893.

The successors to Wm. Bodebender are Feuer & Aubley. Paul L. Feuer was formerly assistant to Samuel Aubley at his Broadway pharmacy. Mr. Bodebender has left for New York with no definite plans for the future.

Look out for Senator Stillwell's druggists' Dow-law bill; it is an insidious, inquisitorial measure. Some elements in the Ohio legislature are fit to make liquor laws for the state of South Carolina, but are entirely out of place in liberal, enlightened Buckeyeedom. Certain abuses in vogue among "up-to-date" druggists are undoubtedly responsible for this hostile legislative aggressiveness. It's the old story of too much of a good thing, etc., but from this it is not to be inferred that the drug business should be put under a quasi prohibitive liquor tax yoke.

A committee of the Cleveland School of Pharmacy met at their headquarters in the city hall April 9, and passed upon the papers of the pupils who were examined the week previous. The examinations were conducted under the supervision of the committee on pharmacy, composed of E. A. Schellentrager, Dr. J. H. Peck, Dr. E. R. Lane, George W. Voss, Herbert G. Biddle. The officers and faculty are pleased with the results attained, partly due to the extension of the courses inaugurated at the beginning of the term. The special summer course in botany commenced on April 10 with auspicious indications. The course is not obligatory. The rapid progress of the C. S. P. is proof positive of the prestige and fame to which it has attained by dint of happy emulations, original and approved methods, a painstaking and efficient instruction corps and wise management. The successful students are: Senior class—Henry Pollock, Frank J. Hauser, George H. Bruehler, Julius Braein, Frank A. Votipka, Enno Krebs, Herbert E. Edwards, F. E. Rudenauer, John Raus. Junior class—Fred A. Rudolph, Philip F. Cincas, A. B. Phinney, Charles Wagner, J. D. Spring, Harry Loeb, Fred A. Offerowski, Frank Albi, Adolph Riegelhaupt, Albert Mauer, August L. Flandermeier, Theodore Quere, William Killins, Rudolph G. Burkhard, Fred Freitag, Clement R. Baldwin, Emil Petersilge, Theodor Wedler, W. Winterbottom, Edward Bzaki, Jacob Tuslig, Franklin H. Frewin, Julius H. Pinhard, A. L. Sharpe, J. B. Hearst, Edna A. Hoffman, Ray Case, Otto Leopold, E. A. Schellentrager, Jr., Thomas Cahill, Henry W. Brockman, Victor E. Miller.

Strain & Cunningham have sold their store at Oskaloosa, Ia.

Paddock's drug store at Netawaka, Kas., was burned a few days ago.

M. Sarbach has succeeded George W. Simonds at Atchison, Kas.

T. J. Morris has succeeded the firm of Morris & Petro at Beloit, Kas.

Frank C. Herkert has given a \$4,000 chattel mortgage on his store in St. Louis.

Druggist G. L. Bates, of Nebo, Ark., and Miss Laura Phagan, of Bloomfield, Ark., were married recently.

The firm of Napier & Thornton, at Hamilton, Mo., has been dissolved, J. T. Thornton continuing the business.

LOUISVILLE.

Louisville, Ky., April 18.—Druggist Snyder is getting things in readiness for the next annual meeting of the Kentucky Pharmaceutical Association. Mr. Snyder is making one of the most active and efficient presidents the association has ever had, and his efforts have resulted in the material building up of the organization since he took charge. He is anxious that those who have received the queries sent out be in readiness for the meeting, which occurs May 16 at Paris, Ky. The association is representative of the drug trade in Kentucky and the membership is rapidly increasing, showing that dealers realize the importance of having a good organization through which their interests may be brought before the authorities whenever they are jeopardized. In more than one instance the K. P. A. has proved its efficacy. It is probable that a larger delegation will go to the annual meeting from this city than ever before. Everything will be done to insure comfort and pleasure as well as profit, and the hospitable little city of Paris has promised to throw her doors wide open and let the visitors run things to suit themselves. These trips are always attended with pleasures which prove a valuable means of throwing the druggists together in a social way and improving their acquaintance.

It is probable that the next general meeting of the Interstate league will be held in either Cincinnati or Cleveland. Those cities have been working for it as though it were a national political convention. Cleveland especially is on the hustle and Secretary Frick says that the indications are she will get it. Within the past few months, says the secretary, there has been a remarkable increase of retail druggists' associations as a result of the missionary work of the league. The benefits to be derived from membership seem now to be fairly understood, and from every quarter come applications for blanks and information concerning organization and membership in the major association. This speaks well for the enterprise and progressiveness of the druggists throughout the country. It shows that they are wide awake and alert in the interests of their business. With unity of action which is a thing of the near future the question of cutting will be settled finally. The league meeting also occurs in May and the event will be looked forward to with much interest, especially in view of the fact that since last year the organization has increased wonderfully in strength and is prepared to back up its demands with the support of thousands of retail dealers who will stand by the action of its officers and committees. Some idea of the work of the league for the past six months may be of interest, and is here given, the information coming from the secretary, who is in touch with the work: New associations have been formed in Norwich, Conn.; Manchester, N. H.; Portland, Me.; Boston, Brockton, Cambridge, Somerville, Lynn, Salem, Worcester, Springfield, Pittsfield, Lawrence and Kakesville, all of Massachusetts. Other associations have been formed also, but these are the most important places heard from. The members of all the branches of the league in the east have formed what is called the New England Druggists' Union, composed of the officers of all the various branch associations. The object of this union of officers seems

to be the canvassing of the various states and counties and the organization of associations wherever they have not yet been formed. These associations are to assist in the effort of the league to induce manufacturers to sell their goods according to the plan mapped out for the protection of druggists. The Druggists' Union is also to take charge of soliciting contributions from manufacturers, thus taking advantage of the offers made by several large manufacturers. Mr. Henry Canning, of Boston, the president of the league, sends word to the secretary that such interest as is being manifested in the league was never known before and he desires to see the other sections of the country to take hold of the work with the zeal of the east.

The College of Pharmacy will graduate a bright class in July.

John C. Weindel, of Shelby and Washington streets, has sold out his store to Voelker & Co.

The drug business in Louisville has been so slow of late that there have been several changes in the stores. It is rumored that it would take but little inducement to get several owners to sell out.

Dr. Wiley Rogers is missed. He is now a farmer, having moved to a place near Hopkinsville for his health. The doctor is very popular in Louisville and his friends hope to see him come back permanently before long.

The boys were sorry to see Fred Miller resign his post as secretary of the College of Pharmacy. He has many friends and his retirement will be a loss to the college. Mr. Miller was acquainted with every living graduate of the institution.

KANSAS CITY.

Kansas City, Mo., April 18.—The Kansas City College of Pharmacy closed its eighth year with commencement exercises April 3, when a class of sixteen was graduated. The exercises were held in the auditorium of the Y. M. C. A. building. The faculty address was made by Dr. Randall R. Hunter. L. E. Irwin made an address and the degrees were conferred by Dr. Emory Lanphear, president of the board of trustees. The class prizes were awarded by G. H. Willett and the alumni prizes by John C. Maxson, president of the alumni association. The faculty prize, a gold medal, was given to G. Frank Meals. Thomas McPherson was behind him less than one-half of one per cent in grade. The faculty prize for the best work in the junior class was awarded to Charles J. Miller, of Kansas City, with honorable mention to M. S. Middlebrook, of Kansas City.

The alumni medal for the best work in the laboratory was presented to E. E. Ellis, with honorable mention to Gratz E. Dean. The alumni prize for the junior class was given to R. S. Stevens, and honorable mention was made of the work of C. Wilson. The following were the graduates: Edward Ackerson, Kansas City, Mo.; Lorenzo Bennett, Colorado Springs, Col.; Hal L. Campbell, Dallas, Tex.; Fush E. Castellaw, Kansas City, Mo.; Gratz E. Dean, Guthrie, O. T.; Edmond E. Ellis, Willow Springs, Mo.; Charles G. Franzen, Kansas City, Mo.; George R. Gage, Omaha, Neb.; Howard C. Jeffers, Lee's Summit, Mo.; Edward C. Jones, Kansas City, Mo.; Jacob H. Kready, Ortanna, Pa.; Walter A. Lans-

downe, Adrian, Mo.; Thomas E. McPherson, Belton, Mo.; G. Frank Meals, Gettysburg, Pa.; Willard C. Proud, Oregon, Mo.; Charles K. Perrie, Mayview, Mo.

After the close of the exercises the graduating class and the faculty became the guests of the alumni association at a banquet at the Midland Hotel. Dr. Claude C. Hamilton was a clever toastmaster. George R. Gage spoke to the toast "The Class of '94" and Dr. Emory Lanphear responded to a call for "The Faculty." F. A. Faxon, of the firm of Woodward, Faxon & Co., and W. E. King, president of the Kansas City Pharmaceutical Association, made short speeches.

The Kansas State Pharmaceutical Association will hold its fifteenth annual meeting at Salina the last three days of this month. Preparations are already being made for the entertainment of the visitors by the druggists of Salina. The committee on membership consists of M. Noel, Atchison; W. C. Pierce, Pittsburg; T. L. Morris, Beloit; J. W. Hurst, Newton, and H. M. Herrold, Kansas City. Mrs. M. O. Miner, of Hiawatha, is secretary, and with the aid of the membership committee she hopes to double the strength of the association.

E. M. Miller has given a chattel mortgage for \$500 on his stock and fixtures.

Frank Price has switched with his creditors and reopened his drug store opposite the Union depot on Union avenue.

Frank N. Johnson has taken charge of the drug store at the corner of Elmwood and Independence avenues, putting a bright new sign with his name over the door.

Following in the wake of Kansas City the police of St. Joseph, Mo., have banished the slot boxes. Under the Missouri law it is a felony to operate a gambling device.

Sheriff O'Neill has taken possession of the drug store of Elizabeth A. Saeger, 1225 Independence avenue, under a writ of replevin sued out in the Circuit Court by the Meyer Bros. Drug Co., of St. Louis.

The police have discovered a new worker of iniquity, the little slot machine, and an edict has gone forth from the chief that it must go. Many of the machines were rented by drug stores and proved quite a source of revenue from idlers around the cigar case.

Thirty-seven members of the Kansas City Pharmaceutical Association spent one whole day at The Elms, Excelsior Springs, a week ago. After dinner they spent several hours discussing business—and cigars.

George Eysell, proprietor of a drug store on Union avenue, and Henry C. Morrison, formerly proprietor of a drug store on Main street, were both elected members of the upper house of the city council by overwhelming majorities on the Republican ticket.

Franklin D. Palmer and Eugene R. Hess have bought the stock of the Palmer Manufacturing Co., at the corner of Twelfth street and Broadway, from F. R. Dimmitt, the receiver, and will continue the business. Mr. Palmer was formerly head of the Palmer Manufacturing Co., and Mr. Hess was bookkeeper for a wholesale drug house.

Clinton G. Nickella, the former Kansas City druggist, who was arrested in Minneapolis on a charge of adultery with the

wife of Druggist Willis H. Graham, was held to the grand jury after a preliminary examination in bonds of \$1,000. The principals in this case spent the past winter at Wahpeton, N. D., each endeavoring to secure a divorce. The prosecution relied mainly on the evidence of servants in the Graham household, some of whose testimony was very sensational.

The Kansas City Court of Appeals has given the F. R. Rice Mercantile Cigar Co., of St. Louis, a final decree in its suit for injunction to prevent James O'Brien and the James O'Brien Cigar Manufacturing Co., of Kansas City, from infringing its trade-mark rights. The case has attracted much interest, as both companies manufactured cigars especially for the drug store trade. The James O'Brien Cigar Manufacturing Co. is enjoined from making, using or selling any cigars put up in boxes or packages bearing the name "Mercantile," or "Americantile," or "Mericanlente," or any name in such close imitation of the name "Mercantile" as to be calculated to deceive the ordinary purchaser, or from using boxes or labels imitating those of the "Mercantile."

THE SOUTHWEST.

George W. Schott has sold his store at Stanton, Neb.

R. J. Derr has sold his drug store at Fontana, Kas.

T. S. Hinde has succeeded Hinde & Butler at Oregon, Nev.

A. E. Troutman has disposed of his drug store at Lushton, Neb.

C. M. Havice, Rexford, Kas., has given a chattel mortgage for \$500 on his stock.

Ida L. Eber has given a chattel mortgage for \$1,500 on her store in St. Louis.

The drug store of C. A. Kaufman & Co., Avoca, Neb., was closed by the Sheriff.

Taylor & Nash have succeeded the Maryville Drug Company, at Maryville, Mo.

Mack Mahoney has given a chattel mortgage for \$558 on his drug store at Greenwood, Neb.

A cyclone did some damage to J. F. Hoods & Co.'s drug store at Emory, Tex., not long ago.

M. M. Cadey's drug store at Little Rock, Ark., was closed under mortgages not long ago.

A. F. Streit's drug store at Sutherland, Neb., was partially destroyed by fire a few days past.

George Thomas' drug and book store at Cameron, Tex., was recently partly destroyed by fire.

J. R. Dean's drug store was entirely destroyed and R. L. Hall's drug store was considerably damaged in a fire at Elmo, Tex., not long ago.

Burglars broke into the drug store of Vanderlinde & Summers at Maitland, Mo., a few nights ago and robbed the cash drawer of a few dollars, but did not touch anything in the store.

A gasoline stove exploded in a restaurant at Poplar Bluffs, Mo., a few days ago, and a dozen buildings were destroyed in the fire which followed. Among them was L. F. Quinn's drug store, the loss on which was estimated at \$3,000, with \$1,000 insurance.

The Kansas Medical College Building Association, of Topeka, was incorporated a week ago, with a capital stock of \$15,-

000. The directors are J. E. Minney, W. E. Swift, R. S. Magee, S. T. Howe, John Dick, the apprentice, was summoned, Is-Guthrie, H. K. Rowley, F. E. Holliday, L. S. Woolverton, P. I. Bonebrake and P. S. Noel.

L. B. Roberson, proprietor of large dry goods stores in Ardmore, Dougherty and Paul's Valley, I. T., and half owner of a drug store in Ardmore, has filed a general deed of assignment, with preferences, naming Thomas J. Cornelius as assignee. The preferred debts aggregate about \$15,000 and other liabilities \$10,000, and the nominal assets are enough to cover the liabilities.

THE CHEMIST'S CAT.

From sketch by Horace Mayhew. Revised and rewritten up to date.

Mr. Simeon Cifuga was a chemist and druggist—not one of your ordinary fellows who put their trust in colored show-bottles and drive a large trade in confectionery, but a practical chemist; a regular and duly authorized P. I. L., of which fact he acquainted the public by means of an inscription on the sign over his door, and of which his neighbors were continually reminded by various odors and not infrequently explosions. On one occasion he succeeded in blowing the roof off the shed which formed his back shop—but this, he said, "was an accident."

Mr. Cifuga's establishment was not only a museum of pills and plasters, but the home of natural philosophy. Experiments abandoned by every one else were eagerly sought after by him, and he had a valuable auxiliary in his cat. When science slumbered the cat might be found comfortably dozing on the prescription case, but when anything new in chemistry, materia medica or minor surgery turned up, both the chemist and the cat had an active time of it. The poor animal had taken poison enough to destroy every one of the nine lives he was reputed to possess, and antidotes sufficient to restore a regiment. A syringe was kept for his special use. One might generally guess when anything new in experimental science had developed, by missing the cat for a few days and by observing the face of the clerk, who, on such occasions, had slips of diachylon plaster stuck at various angles over his nose and hands; for Dick, the apprentice, had the job of holding the cat during the experiments.

The cat's name was Isaac. In his youth he had been christened Aphrodisiac, but at a very early period in his existence, in consequence of a surgical operation performed by his master, this name had become singularly inappropriate, so Mr. Cifuga dropped the Aphro and called his pet feline simply Isaac.

Isaac had become familiar with arsenic and most of the other poisons in all of their insinuating forms and, as already intimated, he had some knowledge of minor surgery; still he went purring about, ready for any emergency, and was always at hand when any new specimen of the materia medica or doubtful prescription required to be practically tested. Mr. Cifuga was very fond of Isaac. "My cat, sir," he would say, "has done more for his fellow men than all the philanthropists, who have only taught people to be discontented." The chemist, the clerk and the cat got on very comfortably and without any serious cat-astrophe until the indefatigable experimenter thought he

would try laughing gas and see if he could extract a tooth under its influence. The cat, of course, was the especial patient. Dick, the apprentice, was summoned, Isaac caught, and gas administered, while Mr. Cifuga applied his forceps to one of the largest tusks. For some reason the gas failed to produce its proper effect, and by a tremendous struggle Isaac freed himself from Dick's grasp, leaving upon his person several marks of esteem and with a tremendous yowl dashed through the glass of the shop window, doing great damage to the galenic products on exhibition within. He absented himself for a week, but, as the song says, "the cat came back," for no one else would harbor such a mutilated specimen.

Science, which labels men F. R. S. and tags half of the alphabet at the end of their names, had, in several degrees, marked her humble votary, the cat. Isaac had lost one ear in an acoustic experiment. The left eye was gone forever, the result of ocular demonstrations of the properties of various collyria. The right eye, which was still the left one, was very far from being truly right, in consequence of successive applications of atropia which gave to this monocular organ the glare of a Cyclops. Successive trials of depilatories and hair restorers had changed the fur on Isaac's head from its natural gray color to the foxy-red of nitrate of silver. One of his hind legs was shorter than it really ought to be from the tendons having been cut in demonstrating the operation for club-foot; the tip of his tail had suffered from a pair of scissors in an attempt to convert it into a paint-brush; and his coat, once glossy, had acquired a seedy, second-hand appearance which would have repelled an old-clothes peddler.

Isaac at last died a martyr to science. Mr. Cifuga had invented a wonderful pulmonary lozenge containing considerable morphia, which, he claimed, was sure to cure a cough on the rafter. Isaac had been for some time rather asthmatic from the inhalation of various gases, and so he was given a good dose. Next morning he was found fast asleep and very rigid in his legs. Dick thought he was dead, but his master repudiated the idea and administered permanganate of potash till his teeth were as brown as those of a confirmed tobacco chewer but it failed to have any effect, so the cataleptic patient was carefully laid away in the full expectation that he would some day start up, as lively as ever. But he did not start, and it was only when the moths got into his coat that Mr. Cifuga was obliged to consign what remained of his furry friend to a quiet grave in a corner of the garden under a pennyroyal bush.

Mr. Cifuga never regained his usual spirits. His experiments were at an end, for though he would sometimes furtively introduce some drug or other into Dick's tea, he never did it with much interest, and soon the young gentleman found it out and took his meals with his mother.

Poor Cifuga wanders about a melancholy man, and amuses himself by dreaming over experiments he would perform if he only had his cat. He is at times aroused from his musing by the shrill voice of some mischievous boy who opens his back door and calls out "Mister, who killed the cat?"

Our aim is to make the ERA the most complete and valuable of all the drug journals.

NEW YORK COLLEGE OF PHARMACY.

Prof. Chandler's announcement last Friday that the boys would have all their lectures in the new building this week was as unexpected as the bomb in the Chamber of Deputies. That "promised land" for which all have been sighing this whole winter was at last opened Monday at 4 p. m. The students were all on hand in the immense lecture room of the new building. The class of '94, headed by the college banner, was the first to appear and they gave college yells that must have set the neighborhood wondering. Then the professors appeared and some of the faculty and here and there a member of the class of '95 could be seen. At a little after 4 o'clock Dr. Chandler took the chair and made a short address to the students, picturing the College of Pharmacy as it was when he first became connected with it, twenty-six years ago. Then the class met in a single room down in Washington square. In closing his address he said that if this college would take such long strides toward improvement the coming twenty-six years as it had done in the past twenty-six his imagination was not sufficient to picture what the result would be. He then proceeded with his regular lecture on organic chemistry, which was the last one for this term.

After the lecture was over the students visited the other yet unfinished parts of this immense structure.

Section I had its laboratory examinations on Monday from 1 to 3:30 p. m. Section II taking from 1 to 3 o'clock on Wednesday. Here is some of the work done: To make soda benzoate, sodium salicylate, tannic acid suppositories, pills of permanganate of potash, and Burgundy pitch plaster, and to identify alkaloids, trochals, etc.

Dr. Atwood was about for the first time last Friday and was greeted with hearty applause.

Mr. Madison's "Going through the Pharmacopoeia" with the seniors has, of course, been highly appreciated and will surely help some of the boys to pass a more satisfactory examination in pharmacy than they otherwise would.

Among the prescriptions shown at the last pharmacy lecture on incompatibles was the following, written 1,000 years B. C.: Pad of dog's foot, fruit of the date palm, ass's hoof; boll together and apply externally.

PHARMACEUTICAL ASSOCIATIONS.

Indiana Pharmaceutical Association will convene in annual session at Evansville June 13 and 14. The local secretary is George W. Haynie, to whom applications for space for exhibits should be made at once.

Alabama Pharmaceutical Association meets at Anniston May 8 and 9 and the Board of Pharmacy on the 9th and 10th at the same place. Headquarters Wilmer Hotel, \$1.50 per day. All are cordially invited to be present.

The Kentucky Pharmaceutical Association will hold its annual meeting at Paris May 16, lasting three days. Among the important matters to be discussed is the liquor tax upon druggists, and a full meeting of the membership is confidently expected. Paris is in the genuine blue grass country, is full of hospitality, and a good time is assured all visitors.

The Ohio State Pharmaceutical Association will hold its thirteenth annual meeting in Cincinnati June 5-7 instead of the time originally set. Cincinnati will see that the drug fraternity of the state and other visitors receive most hearty reception and be supplied with all to render the occasion a memorable one. Communications regarding hotel accommodations should be addressed to Albert Weststrom, 435 Colerain street, Cincinnati, and requests for other information to Lewis C. Hopp, of Cleveland.

BOARDS OF PHARMACY.

The Connecticut State Board of Pharmacy met at Bridgeport April 3 and examined fifteen applicants.

Georgia Board of Pharmacy holds its next meeting in Americus May 7. At this meeting the board will award prize membership in the A. P. A. The board will hold over to attend the meeting of the Georgia State Pharmaceutical Association, which occurs in that city on the 8th and 9th of May.

The Oklahoma Board of Pharmacy held its regular quarterly meeting for the second quarter of 1894, on April 3, at Perry, and the following were successful in acquiring the required 75 per cent and were registered: Edith Ford, Chandler; John H. Smith, New Ponca; A. B. Webber, Pawnee; Thos. L. Neal, Edmond; Eugene Watrous, Enid. Also three others were registered by virtue of being graduates of recognized schools of pharmacy. Wm. L. Rowland, Langston; Wm. R. McGeorge, Stillwater; C. B. Highbargin, Enid. There were thirty in attendance for examination, but as will be noticed by the number who passed satisfactory examination, a large per cent of those taking the examination seemed to forget that to register as a pharmacist that there would in fact be an examination as to proficiency and have not been brushing up. It is our purpose to raise the standard of pharmacy in Oklahoma, and as the law is intended, place a safeguard around the people, from the uncertain and unintelligent dispensing of medicine. The next meeting will be held at Enid on the first Tuesday in July, 1894.

CORRESPONDENCE.

We accept no responsibility for the views and utterances of our correspondents. Contributions must carry full name and address of the writers, which, however, will not be published, if so requested. Copy should reach us ten days in advance of date of issue.

PROFESSOR KENNEDY REPLIES.

To the Editor:

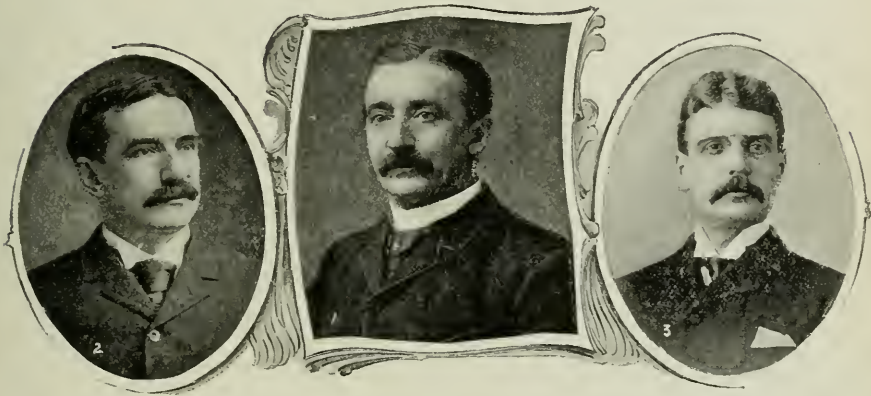
In March last number of your very valuable journal under the title of "Faulty Teaching" there appears an article which states that a professor in a southern college of pharmacy made some remarkable statements during the delivery of a lecture on incompatibility. "For instance, he said that calomel was incompatible with hydrochloric acid for the reason that the acid frequently contained free chlorine, and the calomel was converted into corrosive sublimate." The critic then goes on to characterize the statement as absurd, and to inquire whether it is any wonder that college graduates often fail to acquit themselves with credit before state boards. If the critic had more opportunities for practical study of the subject, or if he had taken time to look up

such authorities as Roscoe and Schorlemmer, Witthaus, and others of this class, he would have undoubtedly refrained from making an assault upon a statement that has such substantial authorities as those quoted to support it. Under "hydrochloric acid" in Roscoe and Schorlemmer's able treatise the statement is made that free chlorine is one of the impurities found in hydrochloric acid, and Witthaus says that "calomel is converted into corrosive sublimate by hydrochloric acid and by the alkaline chlorides."

The next statement to which my esteemed critic excepts is that "nitrous ether is incompatible with soluble iodides, for instance, with the iodide of potassium, for the reason that iodine is set free owing to the presence of acetic acid." In a tone of disgust he makes what he believes to be a correction of a statement that to his mind could not be made by any one at all informed upon the subject. He enlightens us with the statement that the decomposition is accomplished by the nitrous radical, and tells us that this is one of the Pharmacopoeial methods of estimating the amount of ethyl nitrite in any given specimen." He does not state that the test is only valuable in acid media. The authorities which I have already quoted bear me out in the statement that acetic acid does form in nitrous ether through the oxidation of aldehyde, which is always present in the article found on the shelf of the apothecary, and by virtue of its presence the nitrous radical becomes competent to decompose the iodide. It may be well at this point to call attention to a fallacy in the way of testing this article that constitutes a part of the Pharmacopoeial description of nitrous ether in the edition of 1890. In a paper which I read before the Texas State Pharmaceutical Association in 1887 I called attention to this error. It is the bicarbonate of potassium test for acidity. The Pharmacopoeia states that the preparation should not effervesce when a crystal of potassium bicarbonate is dropped into it. My experience leads me to conclude that this test is of little value in the testing of this preparation for acidity, for the reason of the bicarbonate being practically insoluble in alcohol, and the spirit of nitrous ether is simply an alcoholic solution of ethyl nitrite. The addition of water renders the test of some utility, because it facilitates chemical reaction by effecting solution of the iodide.

If the readers of the Era will take the trouble to look up the authorities on the points of my lecture to which my critic takes exceptions they may readily learn who has erred, and see that the criticism has been unmerited. I do not claim that the printed copy of the lecture which fell into the hands of the Era was free from errors; to the contrary, there were glaring typographical errors and one or two in transcribing. But I do claim that the critic has done more to perpetuate erroneous teaching than a half dozen lectures like the one delivered by the undersigned before the medical and pharmaceutical students of the University of Texas, and would modestly suggest to my esteemed critic, that in the future he thoroughly post himself on the suspected error before he casts a slur upon the learning and methods of professors in southern colleges.

JAMES KENNEDY, Ph. G., M. D.,
Dean of Faculty, School of Pharmacy,
University of Texas.



SHARP & DOHME.

CHAS. A. DOHME.

LOUIS DOHME.

ERNEST STOFFREGEN.

CONSERVATISM is always a safeguard against ultra-enthusiasm, and at the same time is consistent with true, healthy progress. Perhaps no single word so adequately expresses the business character of Sharp & Dohme as this, and certainly it applies with no more fitness to any other manufacturing chemist.

The firm was established in 1860 at the corner of Howard and Pratt streets, Baltimore—the site of their present plant.

From time to time, as the need for more adequate facilities for manufacturing purposes was felt, additional buildings were erected, and in 1892 the entire plant was practically rebuilt, greatly enlarged and completely equipped with the most improved machinery for the manufacture of pharmaceuticals.

Their line is large and varied and embraces in addition to Standard Medicinal Fluid, Solid and Powdered Extracts, Soluble Gelatin and Sugar-Coated Pills, Granular Effervescent Salts, Soluble Hypodermic Tablets, Compressed Tablets, Tablet Triturates, Elixirs, Syrups and Cordials, a full line of high grade Pepsins ranging in digestive power from 1:2000 to 1:20000 and including their well-known Webber-Pepsin S. & D guaranteed standard

1:6000 just twice the standard adopted by the U. S. P., 1890.

S. & D. deserve great credit for having generally introduced Porous Hypodermic Tablets, which are unquestionably much more rapidly soluble and therefore better adapted for subcutaneous use than are Compressed Hypodermic Tablets.

Ergotole is another S. & D. product which has on merit alone won general professional recognition. This is a palatable liquid form of Ergot $2\frac{1}{2}$ times the strength of the official fluid extract, and which we believe can be used hypodermically without causing abscess. It is especially recommended for internal use because of its pleasant taste, small dose and freedom from nauseating properties.

Mr. Louis Dohme, the president of the company, is well known in pharmaceutical and chemical circles. His genial affability and personal magnetism have won for S. & D. a host of warm friends. He continues to be the active general superintendent of the affairs of the company.

Mr. Chas. E. Dohme, the vice-president, a thoroughly practical pharmacist and chemist, has charge of the laboratories

in Baltimore, and personally supervises the manufacturing departments.

Mr. Ernest Stoffregen, the secretary and treasurer, a good financier and a just, courteous gentleman personally, manages the business department from their general offices at 41 John street, New York.

Dr. Alfred Dohme, who is in charge of the analytical department, has enjoyed exceptional educational advantages both in America and Europe, and personally assays the crude drugs purchased for manufacturing purposes.

Each member of S. & D. is a practical man, thoroughly conversant with the most minute details of his department.

The Chicago house is in charge of Chas. E. Matthews & Pro.

S. & D. long ago adopted a business policy which aims to protect both the jobber and the retailer in their mutual relations as well as in their business association with the medical profession.

Their creed is purity of drugs, excellence and uniformity of product and courteous treatment of their patrons, and on these lines they have developed their large and constantly growing business.

The Era wishes them continued prosperity.

TRADE COMMENT.

Bulgarian firms propose to exhibit 150 pounds of oil of rose at the coming Antwerp exhibition.

The Willard Chemical Co., Joliet, Ill., have incorporated for the manufacture of patent medicines, toilet articles, etc. J. P. Thornton & Son, druggists, of that city, are interested in the enterprise.

The A. H. Lyman Co., incorporated, has succeeded A. H. Lyman, Manistee, Mich. The new firm will conduct a wholesale and retail drug, confectionery and stationery business.

The business of W. S. Powell & Co., Baltimore, Md., was incorporated March 21, under the name of the Powell Fertilizer & Chemical Co., with capital of \$45,000 paid up. W. S. Powell is president, and Charles Halzerman treasurer.

A French pharmacist, asked to prepare an emetic of ipecac, supplied extract of opium, the result being that a child patient was put into the sleep that knows no waking. The mother of the child supplied a portion of the medicine to a friend, who in turn using it, caused the death of her own son.

The agents for Richard Brandt's Swiss Pills have placed contracts for \$5,000 worth of advertising with 250 German papers in all parts of the country. These will be followed by similar contracts with papers printed in English text. This will increase the already considerable demand for these pills, which are bound to become a staple article in short order.

Among a large number of valuable prizes given in a lottery scheme authorized by the Tasmanian government, we are told by the Chemist and Druggist, is listed the entire business of a wholesale and retail pharmacy valued at about \$50,000 and another prize is a drug shop and stock worth in the neighborhood of \$6,000. Our contemporary remarks that even if he received the stock and shop for nothing a new comer in the island would need to have all his wits about him to make the business pay.

Even in Algerian drug shops clerks' mistakes occur, but in a recent instance the clerk himself was the sole sufferer. Feeling ill and wishing to take a dose of quinine, he helped himself to a couple of packets from the stock, but by mistake obtained strychnine and died after terrible suffering. His family sued the pharmacist for very heavy damages, claiming that the strychnine ought not to have been kept within reach of the clerk, but upon trial of the case it was decided that the deceased, having taken the article without permission, his representatives could have no right to compensation.

The merchant sat in his empty store and tore his crumpled hair, his teeth were set in his wrinkled face and his eyes wore a glassy stare. "Oh, woe is me," he cried aloud; "oh, cuss me for a chump, a big, raw idiot I have been; and an eighteen carat gump. I thought the people knew me well, my newspaper ad. I stopped, and now below the average, my daily sales have dropped. I've been here years and years, I've grown up with the town, but as soon as I quit my newspaper ad. my sales began to go down. If it's not too late, you bet your life, I now propose to strive, by putting my ad. in the — again, to let the people know I'm alive."

In consequence of a fire on February 21, the Sommer, Lynds & Co., of Quincy, Ill., turned over their entire stock to the insurance companies, and they now announce that they will reorganize and re-open the former business on May 1, under the name of Aldo Sommer's Drug Co. The members of the new firm are Aldo Sommer, Phil Schanz and Charles E. Lionberger.

There has recently been brought out in France, says La Nature, a sort of fancy soap for the use of those who are obliged to do considerable traveling. It is a question of small pieces of paper, slightly larger than visiting cards, covered on each side with a thin layer of ordinary soap or of soap variously colored and perfumed. These soap papers are put into memorandum books, card cases or pocket-books, just as if they were visiting or business cards. Each sheet serves as soap for one time only, and is used like an ordinary cake of soap. In fact, it is an easily carried soap that may be offered to a travelling companion, for every sheet is intact, it having to be used but once. The manufacture of this soap paper is very simple. It consists in immersing sheets of unsized paper in a bath of coconut oil soap, prepared in the same way as for the manufacture of toilet soaps. The strips of paper are dried, and then passed between rollers, in order to render them smooth and give them a handsome appearance. The strips are then cut to the proper dimensions and stamped with such marks as may be desired.

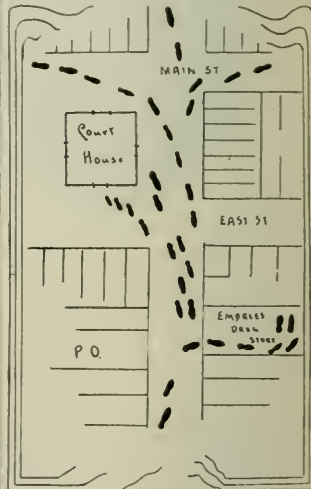
Instead of paper there may be used squares of parchment papers, or better still, of tracing cloth. This industry is still new, and we do not yet know what development is in store for it.

"Trade," of Minneapolis, makes the following remarks upon a subject which is now of considerable interest to the average retail dealer: "The department stores continue to offer a source of discussion to trade journals and to those who are engaged in the old form of storekeeping. They will always be the subject for discussion until the regular stores adopt some of the methods of the department stores, for there are some advantages the latter have which will always make them considerable factors in commerce and strong competitors of the individual stores. Chief among these is the fact that they advertise. To be sure there are many merchants who advertise; but there are very few who advertise as do the department stores. There are very few who keep abreast of the demands of the department stores. And these very demands are created by advertising; that is one secret of the success of the department store—it creates the very demand which it is intended to supply. The various minds and ingenuities of the department store managers are directed primarily to this purpose: To keep their fingers on the public pulse and so far as they can to anticipate the need of that public and when that cannot be done to be ready in the shortest possible time to supply those needs. The department store is not afraid of a new thing because it is new; on the contrary, the moment a new thing is heralded, that moment they are eager to take advantage of the advertising done by the manufacturer or jobber to push a new thing for all there is in it."

[Written for the Era]

JACK EMBREE'S ADS.

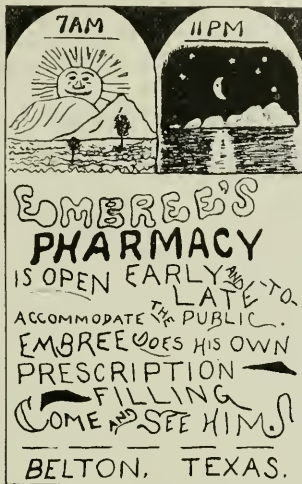
In response to a very general invitation on the part of the Era (one which, by the way, is still open) to retail druggists to submit samples of effective advertising, Mr. A. J. Embree, of Belton, Texas, submits several, made apparently by the zinc-etching process, from which we have selected three which are especially unique, and reproduce them herewith for the benefit of our readers. As Mr. Embree does this work himself, we hope at some future day to give the details of the process used, so that the more ardently inclined of the pharmaceutical fraternity may find scope for their abilities by working along similar lines. In referring to the subject in a general way, Mr. Embree says: "In attempting to say anything about advertising, I do so with a great deal of trepidation, for the reason that I am face to face with the fact that there are men who furnish the press with advertising articles, who have made it a life-long study, yet in spite of this fact I will endeavor to give some of my ideas, which I trust will be of benefit to some brother druggist who, like myself, does not "know



It all," but is willing to learn something, even if it is from a novice in the art (it is an art) of advertising. I think that an interchange of ideas by means of the pharmaceutical press would be the means of developing better business ability on the part of the retail druggist, and for myself I would be glad to see such a course more generally pursued. We, the retail druggists, do not give as much attention to advertising our wares as the importance of the subject deserves. It is really quite a problem, and it should be worked out by all of us as far as practicable. Show me the man who advertises his business in the right way, and I will show you the man who is not grumbling all the time about hard times, and is not finding pit-falls at the half-way mark in all his business journeys. The first thing that I do when my different drug journals arrive is to scan their columns in search of something on advertising. Let me commend the articles that have been pub-

lished in the Era since the first of January under the caption 'Hints on Advertising.' I have found them all well worth careful perusal. My idea in regard to advertising is this: First of all learn to love printer's ink and learn to love it well, then make a contract with a local paper after carefully studying its subscription list and the quality of its press work, for both of these are worthy of careful consideration. Get your position, and let it be next or as near as possible to the "local" columns; engage say five or six inches double column, or about nine or ten inches single column, or it would be a clever idea to alternate, using one space for a month or two and then changing to the other, being careful to keep about the same position, because the people who read the papers will soon know just where to look for your advertisement. Having secured the position, the next thing is to put something in your space that will hold the attention of these readers. The best way I think to do this is to use illustrations, comical or otherwise, and have your reading matter explain in some way the illustrations presented. These illustrations can be procured from most any house that makes a specialty of advertising, or you might do your own engraving as I do, and thus get your advertising at a minimum expense. It matters not if your work is not the fine finished work of the professional, so long as it is odd and attractive and will catch the eye of the people. A few locals now and then help your display advertisements wonderfully. To those who say they haven't time to attend to their advertising I would offer the advice to get some good "ad" writer to do it, as the nominal charge made for such work is quite insignificant compared with the importance of results obtained.

can, and I guarantee you will see a difference in your business in a very short time. It will at least be much better than during the cobweb regime. My observation in window display has been, that something moving in your window is much



7 AM

11 PM

EMBREE'S PHARMACY

IS OPEN EARLY TO LATE TO ACCOMMODATE THE PUBLIC.

EMBREE DOES HIS OWN PRESCRIPTION FILLING.

COME AND SEE HIM!

BELTON, TEXAS.

better than a stationary display, from the fact that a moving figure or object will catch the eye of the pedestrian as he passes, and if you have something nice in your window, he will stop and admire it and perchance will think of something he wants to buy, which he will purchase of you instead of going down the street to the next drug store. Inside the store everything should be nice, attractive and refreshing. Put in palms, ferns or other plants here and there, or have an aquarium well stocked with gold fish. Keep your show cases faultlessly clean, your bottles well arranged on your shelves, treat everyone courteously, try to keep nearly everything in your line of business that is wanted, and you will be well advised and do a profitable drug business."

Regarding the enclosed samples of my advertising, they have been trade winners for me, and I think this style of advertising will prove the same to any one who would be willing to make the effort, and it does seem to me that the retail druggist of the present time should be up and doing, and make the same effort for trade that other lines of business are making."

According to the Florida Citizen the castor bean thrives in that state as in no other part of the United States and is not injured by frost. The plant is almost a perennial, and produces beans at all seasons of the year. It improves the soil that it grows upon and once started, takes care of itself. It is asserted that castor beans can be produced in Florida at less than half the cost that they can in Kansas, and the only reason for their not being grown in the former state is because there are no facilities for manufacturing the oil.

Our aim is to make the ERA the most complete and valuable of all the drug journals.

[Written for the Era.]

BUYING AND TESTING DRUGS

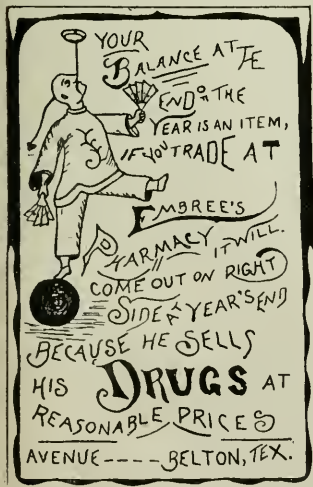
By F. J. Wullling.

In the maintenance of his stock a pharmacist necessarily needs to buy; his purchases may include preparations which he could profitably make himself, or have made on his premises. The scientific and economical pharmacist will invariably make all preparations which may be made savingly, on a small scale, instead of purchasing them; he needs, however, to buy the initial ingredients of all preparations, and in the buying the pharmacist makes or unmakes one of the most potent opportunities for the practice of profitable economy. His purchases are the gateway of financial efflux, and unless made guardedly and judiciously may occasion marked differences in the figures on the debit and credit pages of his books at the end of a month or at the end of any business period.

Judicious buying does not usually mean the purchase of the cheapest goods, or purchasing in large quantities; more frequently it means the procurement of the best to answer the intended purpose, without any special regard for the price. In buying, the first factor is quality, the second, to obtain the quality for the least money. The first may be determined by the application of the tests given in the Pharmacopoeia, the second by personal attention to the market quotations and to the quotations from individual sellers. There are innumerable articles alike in quality, which are quoted at different figures by different houses; there are times of the year when some of the drugs are cheaper than at others, without varying in quality; at times some of the wholesale houses have opportunities or special facilities for buying at better figures than their competitors, enabling them to sell some goods cheaper. Then, buying in large quantities usually enables the pharmacist to get lower figures than by buying as occasion requires. The investment of the larger sum is sometimes not admissible, but if the pharmacist's credit is good he usually has no trouble in buying at 60 or 90 days, at the end of which time frequently enough of the purchase has been disposed of to have yielded a profit which would be good interest for the money invested. Purchasing for cash usually procures lower figures than buying on time, and besides, the wholesale houses usually give a discount of from two to five per cent for cash.

Buying everything from one house is not a good plan, unless one's business is so small that it will not warrant the investment of the money it requires at one time to buy larger quantities directly from the manufacturers. Buying directly from the producers usually saves the jobber's commission, which, in a year's business, as a rule, aggregates quite an item. The wide-awake, enterprising pharmacist finds abundant opportunities for economical buying, and, for the greater part, he personally attends to the purchasing.

After the indulgence of his business capacity in the purchase of goods, the pharmacist, if he is mindful of his and the public's interest, applies his more important, because professional, ability to testing the purchases with a view of ascertaining how nearly they harmonize with the requirements of the Pharmacopoeia. The wise pharmacist will always specify U. S. P. if his purchases are official, and if they are not, he will obtain



YOUR BALANCE AT THE END OF THE YEAR IS AN ITEM, IF YOU TRADE AT EMBREE'S PHARMACY I WILL COME OUT ON RIGHT SIDE AT YEAR'S END BECAUSE HE SELLS HIS DRUGS AT REASONABLE PRICES

AVENUE --- BELTON, TEX.

The next matter of importance in regard to advertising the business of the retail druggist is proper attention to show windows. If you have show windows, for the love of decency, don't let them become full of cobwebs. Clean them out at least once a week and put something in them. Put your displays in as tastily as you

previous to the purchase a statement from the seller regarding the quality or strength of the drug or preparation, upon the condition of the correctness of which he will make the purchase. Serious difficulties have arisen between buyer and seller when the purchaser did not buy conditionally and wanted to return goods after examination; hence it is always a wise precaution to have it understood that goods must be as represented, or if not, that they will be returned. Every article purchased should have individual inspection before being placed upon the shelf or assigned to its accustomed place, but all substances strictly medicinal, official or otherwise, should have especial attention with a view of ascertaining their quality. For the latter purpose an intimate knowledge of the Pharmacopœia is essential. The U. S. P. is the American pharmacists' guide; its place is on the level of the highest achievements of pharmacy; its directions are the best consistent with the high interest and aim of pharmacy; its scope is wide and comprehensive, including nearly every phase of application which the pharmacist has occasion to make in carrying on his vocation in the fullness of its professional nature; its design is to profit the profession of pharmacy and medicine. Every pharmacist's aim is, or ought to be, to work in the line of the highest business and professional development, and to do this an adherence to a standard no lower in order than the Pharmacopœia is imperative, and most pharmacists rejoice in the privilege to measure the standard of their business by the standard of this work. Close allegiance to the latter and the faithful carrying out of its purpose relieve pharmacists of much responsibility, besides facilitating and promoting the conduct of their business.

Adulteration has been practiced by unscrupulous and unprincipled persons until it is almost a perfected art. Those who engage in this nefarious practice are usually very skilled in their abominable purpose to make detection of the fraud exceedingly difficult. Unless the pharmacist is thoroughly convinced, and he cannot always be, that a drug or preparation is strictly U. S. P., he must apply the official tests for identity, purity and strength. In the case of chemicals and many preparations this is comparatively easy; the identity of crude drugs, too, is easily established by reference to the Pharmacopœia. A difficult task it is, though, to detect adulterations in f. l. volatile oils and powdered drugs. The scope of the Pharmacopœia does not include directions for the discovery of adulterations in the latter, probably because of the difficulty of outlining methods which are applicable to all cases, and hence there is a greater incentive to adulterate in this direction. Chemical agents are of use sometimes in the detection of foreign substances in powdered drugs, but the microscope usually affords a better means for detection, and no pharmacist should be without an instrument of this kind in his laboratory. Unless he powders all his drugs himself, or has them powdered under his direction, the pharmacist needs a microscope with which to examine the powders he must purchase. Sometimes a simple lens will be of value, but more often a high power is necessary, especially when the structure of the cells which characterize many drugs needs to be viewed. Not all drugs lose the full-

validity of their cells when powdered, and in this fact there is a means of detecting adulteration. Starch is frequently employed to adulterate with, this of course being easily detected with iodine and the microscope. One, with a little practice, will soon be able to detect matters which are foreign in powders; to become familiar with the microscopical appearance of very fine saw-dust, powdered brick or sand, flour, floor-sweepings, etc., does not require a great deal of practice, but the detection of the thousand and one unknown adulterants is no easy task. It is more easily possible to learn by comparison with a sample of powdered drugs which is pure, than a given sample is adulterated, than to tell with what it is adulterated, and it is usually sufficient to know that the sample is not pure in order to reject it.

The scrupulous pharmacist will employ all means, whether suggested by the Pharmacopœia or not, which his competency and skill afford, to assure himself of the purity and quality of the medicinal agents he keeps in his establishment, and he will spare no effort to maintain the uniformly high standard which the Pharmacopœia fixes for the substances it embraces, and to apply the principles inherent in it and suggested by it to drugs and preparations which are not official. A pharmacist should not refrain from applying appropriate tests in particular cases because these might not be contained in the Pharmacopœia. The latter, however, provides for most cases; and when it does not, as in the instance mentioned (powdered drugs), other references should be consulted, or original work entered into by the progressive pharmacist. Some pharmacists state that it would take too much of their time were they to test all their purchases, or the products of their laboratories, according to the U. S. P. or any other directions, and that they have enough confidence in the sellers to make special investigation by them unnecessary. This sentiment has lately been unhesitatingly expressed to the writer, and there is no doubt that it voices the disposition shown by many pharmacists toward testing purchases. This is an unsound sentiment, and the expression and carrying out of this temper of mind are the result of incomplete and perhaps careless reflection upon the responsibilities resting upon the pharmacists, and especially upon those who would make light of their duties to themselves and to the public.

The plea that it requires too much time to test purchases is never made by a pharmacist who stops long enough to carry the thought to its end—that the application of the pharmacopœial tests for both the identity and purity of drugs is one of the primal factors in the pharmacist's self-protection and preservation; it is a necessary agent in the survival of the fittest. The pharmacist who will not throw this barrier of protection around himself, is, to say the least, near sighted concerning his own interests and inferentially concerning the public's. The other sentiment, that which reposes enough confidence in the seller to render testing superfluous, is a more ideal one, but it, too, falls far short, because it neither serves the purpose of the expression of confidence, nor does it protect from or relieve the pharmacist of responsibility in any manner. The personality of buyer and seller has nothing whatever to do

with the question; it is supposed that the faith of both is good, but both may make serious mistakes in good faith if they do not adopt all necessary caution in the manipulation of drugs and medicinal agents. That kind of good faith is unavailing. The ever present question which confronts the conscientious pharmacist is, how he can reduce the burden of responsibility to a minimum, and surely the reliance upon those selling him drugs for the latter's identity and quality is not the solution of the question, notwithstanding, that the seller's integrity and verity are unimpeachable. In whose experience is there not a record of a mistake, of little or great importance, made by the jobbers or manufacturers? It is not censuring these latter by alluding to this fact—mistakes or unintentional errors practically cannot be avoided, notwithstanding that usually the very best and improved methods are employed by the manufacturers for their avoidance. The jobbers, too, employ very careful business methods, but they are mediums buying from the producer and selling to the retailer, usually selling their goods upon the representation given by the manufacturers, hence the pharmacist has no guarantee in them. The question, considered from all points of view, will solve itself in no other manner than by reflecting upon the individual pharmacist the necessity, in self defense, of rigidly following the directions of the Pharmacopœia, and perhaps of other authorities, in the matter of establishment of the identity, purity and strength of medicinal bodies. The pharmacist must himself shoulder the responsibility; he cannot afford to trust it to, or discharge it upon, those from whom he purchases.

The tests, physical and chemical, given by the Pharmacopœia, are the simplest consistent with the purpose for which tests are intended, and their execution ought to be within the range of every pharmacist's ability. It is not the province of the Pharmacopœia to explain the nature of the tests it contains, but those whose knowledge of chemistry does not extend to the interpretation of the chemical phenomena involved in these tests can easily learn the needed explanation by reference to the many text books. Those who, with the aid of text books, lack the ability to apply and understand the Pharmacopœial tests, have not yet developed to the standard which the profession requires of them, and they must submit to be relegated to the incompetent class.

To those pharmacists who have not applied the Pharmacopœial tests, the rigid application of them will reveal a state of things which will lead to conviction of the necessity for constant and vigilant use of all possible means of detecting adulterations, impurities and deficiencies of strength.

The simplest, and usually the first in order of application, are the tests for identity; these may be the physical tests of tasting, smelling, ascertaining the solubility, density, etc., or the chemical tests for the base and acid, or both. It is not infrequent that mistakes are detected in this manner. From a record kept by the writer, the following extracts, which probably any experienced pharmacist could duplicate in number, will show the utter fallacy of the confidence-in-the-seller sentiment:

PACKAGES LABELED.	CONTAINED.
Potassium Chlorate.....	Potassium Chloride
Silver Nitrate, Fused.....	Silver Nitrate, Diluted
Barium Nitrate (for pyrotech- nics).....	Sodium Nitrate
Sodium Hyposulphite.....	Sod. Hypophosphite
Oleate Mercury.....	Oleate Quinine
Cotton Seed Oil.....	Linsed Oil
Coppers (barrel).....	Glauber's Salt
Peppermint (ounce pks.).....	Spearmint
Cypridinum.....	Flint Root
*Rochelle Salt (50 lb. box).....	Tartaric Acid
Licorice Root (powdered).....	Ipecac (powdered)
Comp. Extract Colocynth.....	Extract Jalap
*Oil Lemon.....	Oil Anise
Nitric Acid C.P. (1 lb. org. pkg.).....	Hydrochloric Acid
Mercury Cyanide.....	Potassium Cyanide

These mistakes were detected in a period of a little less than six years, during which time every purchase was submitted to a rigid examination. The list speaks for itself; a survey of it will show that, as a rule, the mistakes were in labeling, and there was a similarity between the bodies mistaken, indeed this is the case in all instances, excepting, perhaps, mistaking oil of lemon for oil of anise. In all cases, excepting those marked *, the bodies indicated on the label were ordered. Those marked * were sent instead of the substances indicated by the names opposite. How the mistakes happened, by whom they were made and that others are being made constantly, is the ghost that will not down, and which stares threateningly in the pharmacist's face. This is nearly as dangerous a species of mistakes as those sometimes committed in dispensing and fully equaling them in the possibility of dire results. While a mistake in dispensing is usually a single one, the mistakes referred to are initial, frequently leading to a multiplication before the error is detected, and it takes all the longer in these cases for the error to be discovered because the detection is not usually the result of investigation but of accident. Any process of reasoning leads to the conclusion that the pharmacist must in self-defense apply tests for identity to the drugs he purchases.

Just now a perusa. of the editorial page of the Era of March 15th brings to the writer's notice a mistake of the nature of those just discussed. The unfortunate circumstance strengthens the argument in favor of testing drugs and chemicals at least for identity, and forcibly illustrates the woeful possibilities which may result from negligence in this direction.

The tests for purity and strength are of less importance, in a sense, than the tests for identity; of less importance only because the omission of their application would in nearly all cases not contain so much possibility of harmful result. The pharmacist who would not test his calome for corrosive chloride, his bismuth salts and sulphur and mineral acids for arsenic, his sodium and potassium iodide for iodate, etc., would be endangering some patient's health and his own reputation; the pharmacist who would not test his spirit nitrous ether for strength of ethyl nitrite, his cinchona and opium for alkaloidal strength, his potassium and sodium bromides for more than 3 per cent of chloride, his powdered drugs for adulteration, etc., would not be judicious in his economy, and would perhaps be negligent at the expense of some patient.

Time and space will not permit enumeration of the vast array of instances of the discovery of adulteration, deficiency in strength, and impurities, of

which records are at hand, nor is it necessary in an article like this, whose purpose is to arouse in some pharmacists the latent energy to apply the tests, rather than to tell them how to apply them or to convince them of the wisdom of the employment of all possible precautions to avoid mistakes or to lessen their own responsibility.

COMPARATIVE STATEMENT OF DRUG EXPORTS AND IMPORTS.

	Month ending Feb. 28, 1894.	1893.
Articles free of duty:		
Alizarin and madder.....	\$ 23,794	\$ 55,641
Argol or crude tartar.....	142,208	249,005
Cinchona barks.....	14,994	8,318
Cochineal.....	2,136	1,884
Logwood.....	92,644	91,199
Other dyewoods.....	1,923	25,058
Gums—Arabic.....	4,578	18,807
Camphor, crude.....	34,511	86,003
Gambier.....	66,981	38,185
Shellac.....	128,183	83,334
All other.....	192,888	401,639
Indigo.....	216,799	932,321
Licorice root.....	180,233	195,558
Bleaching powder.....	126,113	142,884
Mineral waters.....	6,121	7,186
Opium, crude.....	214,781	78,244
Potash—Chlorate.....	49,999	35,175
Muriate.....	44,983	73,645
Nitrate, crude.....	7,684	12,034
All other.....	19,943	40,623
Quinia and other salts of cinchona bark.....	52,699	30,886
Soda, nitrate.....	228,018	201,341
Sulphur, crude.....	58,922	208,834
Vanilla beans.....	13,827	37,181
Miscellaneous.....	339,379	353,523
Total.....	\$2,294,326	\$3,408,558

Articles dutiable:		
Coal tar, colors, etc.....	122,659	166,564
Glycerin.....	25,109	37,388
Dyewoods.....	12,467	22,551
Opium, for smoking.....	49,352	87,413
Soda—Caustic.....	66,050	111,946
Sal soda.....	11,008	11,826
Soda ash.....	302,141	405,295
Other salts of.....	12,244	25,884
Sumac, ground.....	17,146	19,304
Miscellaneous.....	289,239	413,348
Total.....	\$807,415	\$1,301,519

Exports:		
Acids.....	13,413	9,902
Ashes, pot and pearl....	7,858	2,725
Dyes and dyestuffs.....	38,158	47,432
Ginseng.....	32,810	23,746
Medicines, patent and proprietary.....	126,119	145,657
Roots, herbs, barks.....	9,444	15,187
Miscellaneous.....	328,198	259,057
Total.....	\$554,000	\$509,706

NITRIC ACID.

Below is a portion of an address recently delivered by Professor George F. H. Markee, of the Massachusetts College of Pharmacy:

Nitric acid was known to the old alchemists, who manufactured it and became familiar with most of its characteristics. In 1875, Cavendish, an English chemist, determined its constituents and made it out of its elements. It is a chemical combination of nitrogen and oxygen, atmospheric air being a mechanical mixture of the same materials. If an electric spark is passed through the air its effect is to combine chemically the nitrogen

and oxygen there present and a quantity, smaller or larger, of nitric acid is made in many ways, by flashes of lightning and from the decay of animal or vegetable tissues. This percolates through the soil and thus various nitrates are formed. Formerly India produced the greater part of the nitre of commerce, it being the province of one caste of the Hindus to care for the sewerage of the towns and villages and to produce therefrom the nitre.

The great storehouse of the world of nitrates at present is in the great desert of Atacama, in Chili, popularly known as the Chilian nitre beds. The district was so valuable that it was practically the cause of a recent war between Chili and Peru. The country is without rain, and from the accumulation of refuse from birds and animals, the soil is heavily charged with nitrates. The earth is excavated on an enormous scale with the most improved machinery, the earthy matter being eliminated, and a product, known as Chilian saltpetre, is produced by a very low rate. By a simple and inexpensive treatment with some of the Stassfurt minerals, the more valuable true saltpetre is produced. By the old way of making nitre, the results were sometimes very successful and sometimes total failures. Late investigations, however, show this very interesting fact, that one of those minute vegetable growths, known as bacteria, is a necessity for the production of nitre from refuse. The scientific nitre maker looks for this bacterium and sows it just as carefully as the ordinary farmer does his seed. In fact, this discovery has a strong bearing on matters agricultural, for the need of nitrogenous elements in a soil which is to produce crops is well known.

The Herf & Frerichs Chemical Co., of St. Louis, manufacture a full line of pharmaceutical and photographic chemicals and have developed a large and still quickly growing business since they started six or seven years ago. In addition to their bromine and iodine preparations, their subnitrate bismuth and sulphuric ethers, which are favorably known amongst the trade and are winning new friends for their many other chemicals day by day, they are large manufacturers of salicylic acid, synthetic oil wintergreen, a perfectly white salicylate soda, acetanilid, U. S. P. crystals and fine impalpable powder, etc. Their salicylic acid is not only equal to any of the imported brands but is always uniformly snow white and pure, melting at 157 deg. C, which none but the purest acid will do. With such an excellent quality of American salicylic acid, which has been used for a number of years with the utmost satisfaction in all parts of the country, ever consumer should favor this American make and specify H. & F. in all his orders. For the convenience of their eastern friends they carry a stock of salicylic acid, oil of wintergreen, acetanilid, and other leading specialties at their warehouses and office, 96 Fulton street, New York.

B. FRANK GODDARD, Lynchburg, Ohio.—I think the ERA is the most complete magazine of any published, and your articles are immense. I can cheerfully recommend the Era Key to the U. S. P. to all physicians. Accept my thanks for the Era Dose Book, as it is quite an aid in the prescription counter.



D. HORN, JR.

CASH PRIZES TO AGENTS.

In the fall of 1893 we offered to the agents of wholesale drug firms special inducements to solicit subscriptions for the *Pharmaceutical Era*. The contest closed March 1, 1894, and we are now pleased to announce the results, with portraits of the five agents standing highest in the list.

The special cash prize of \$250 to the agents taking the largest number of subscriptions, was won as follows:

- First prize, \$100—David Horn, Jr., Smith, Kline & French Co.
 Second prize, \$50—Geo. Budde, Steinvogeler Drug Co.
 Third prize, \$30—D. A. Harrison, Farrand, Williams & Clark.
 Fourth prize, \$20—J. I. French, Gilman Bros.

Jobbers Purse.

The "Jobbers' Purse" amounted to \$66.98, divided into four prizes, and was won by the following gentlemen:

- First prize—J. I. French, Gilman Bros., \$33.49.
 Second prize—D. A. Harrison, Farrand, Williams & Clark, \$16.75.
 Third prize—David Horn, Jr., Smith, Kline & French Co., \$10.05.
 Fourth prize—J. Schreiderer—P. Van Schaack & Sons, \$6.69.

Payments for the prizes have been made to the different parties, as per their published receipts, which we give below.

It seems very appropriate that we should say a few words in regard to the successful contestants, pictures of whom are given herewith.

Acknowledgements

Cincinnati, O., April 10, 1894.
 Messrs. D. O. Haynes & Co.,
 Detroit, Mich.

Gentlemen:—Your favor of the 7th inst., enclosing check for \$35.28, being 5 per cent. of order and second prize to agents of wholesale drug firms, duly received. To say that I was agreeably surprised was putting it very mildly. I can only thank you for your promptness in this matter and you can rest assured that I will do my utmost to advance the interests of the *Era* in this section and help to maintain it as the standard journal in the drug trade.

Wishing you success in your new field of labor, I remain

Very respectfully yours,
 GEO. BUDDE.

Harrisburgh, Pa., April 9, 1894.
 Messrs. D. O. Haynes & Co.,
 Dear Sirs: Yours of the 7th, containing check for \$10.05, received to-day. Kindly accept thanks.

Thanking you for your kind congratulations, and hoping that in the future I may be able to further the interests of the *Era*, I remain

Very truly yours,
 DAVID HORN, JR.

Kalamazoo, Mich., April 12, 1894.
 Messrs. D. O. Haynes & Co.,
 Detroit, Mich.

Gentlemen:—Your favor of the 7th inst., inclosing draft for \$46.75 for cash prizes, is received. Many thanks.

I am pleased that my efforts in your behalf came so near the first among all who entered into competition.

Yours truly,
 D. A. HARRISON.



GEORGE BUDDE.

Chicago, April 14, 1894.
 Messrs. D. O. Haynes & Co.,
 Detroit, Mich.

Gents:—Yours of recent date enclosing check for \$6.69 as fourth money on your "Jobbers' Purse" duly received, for which please accept many thanks.

Your humble servant,
 JOHN SCHEIDERER.

D. HORN, JR.

Mr. Horn, winner of the first special cash prize for the largest number of subscriptions, and of the third portion of the "Jobbers' Purse," is a product of Philadelphia, in which city he was born and raised. He entered the drug business in 1863. He has been traveling in the interests of Smith, Kline & Co., and of the Smith, Kline & French Co. since February, 1878, this being his seventeenth year of service with them. His success as a traveler has been very gratifying, and he is credited with having a larger share of the drug trade of Pennsylvania than any other traveler in that state. We present few facts relative to his personality, as his acquaintanceship is large, and, farther, his career has been not uneventful, perhaps, but confined within the

limits of the single trade in which he has always been engaged.

GEORGE BUDDE.

Mr. Budde is connected with the Steinvogeler Drug Company, of Cincinnati, and is the recipient of the second special cash prize awarded by the *Era*. He is 33 years of age and has lived in the Queen City nearly all his life, for the past fifteen years having been identified with the drug business. He received a common school education and at the age of 13 entered the law office of Howard Douglass, with whom he remained for five years. Finding Hackstone too monotonous, he decided to enter mercantile business and connected himself with the firm of R. Wurlitzer & Bro. Here his first position was as assistant book-keeper, and later he was made city salesman, in which capacity he served until two years ago, when he entered the employ of the drug house with which he is still connected. Here he is the manager of the druggists' sundries department and enjoys the confidence of his firm and the cordial friendship of its patrons. He is married, the father of three children, and occupies a pleasant home at 228 Laurel street.

DWIGHT A. HARRISON

Mr. Harrison is the recipient of the third cash prize and the second portion of the "Jobbers' Purse." He is a native of Lenawee County, Mich., where he was born in 1847. He received a good education, and in 1868 a diploma from the Michigan Agricultural College. In the spring of 1869 he began the drug business in the store of the Hon. Frank Wells, with whom he remained two and a half years. In 1871 he entered into partnership and Wells & Harrison conducted a store at Williamston, Mich., for nine years. The close confinement of the drug business, with its long hours, began to affect his health, so much so that he disposed of his interest in the Williamston store and took a position with Farrand, Williams & Co., of Detroit, to represent them in central and western Michigan. When the organization of the present firm of Farrand, Williams & Clark was effected, he went with them, receiving his old territory, which he still covers. His practical experience in the drug trade covers a period of twenty-five years. He calls Kalamazoo his home.



DWIGHT A. HARRISON.



JOHN SCHEIDERER

This gentleman receives the fourth portion of the "Jobbers' Purse." He was born January 31, 1866, in Milwaukee. His entrance into the drug business was in 1883, and he served in a retail store until 1888, when he entered the employ, as salesman, of the wholesale drug firm of F. Dohmen Co., continuing in that capacity for about a year, then removing to Chicago, where he received a position with Peter Van Schaack & Sons, where he still remains. He has some little side ventures, notably being a joint owner of the Berlin Chemical Company, which manufactures the well paying specialty, German Vermiline, an efficient insecticide.

J. I. FRENCH.

Mr. French is the winner of the fourth portion of the special cash prize for subscription orders, and ranked first in the total amount of orders. He is in the service of Messrs. Gilman Bros., of Boston, representing them in eastern territory. We regret Mr. French's portrait was not received in time to present on this page, but a subsequent issue will contain it, with a more extended biographical notice.

GENERAL DIRECTIONS FOR MICROSCOPIC WORK.

1. Acquaint yourself thoroughly with the mechanism of the microscope you are to use.
2. Observe great care in the removing and putting on of objectives, so as not to drop them, for they are delicately constructed and liable to injury. The eye-pieces and eye-piece micrometer should also be handled with care.
3. Observe care in focusing, particularly when high powers are used, so as not to run the objective down against the slide and endanger either the cover-glass or the objective itself. Be sure also that you focus the microscope accurately, otherwise the structure of the object will not be distinctly seen.
4. Give due attention to the adjustment of the reflecting mirror, so as to secure the most favorable illumination of the object. Much of your success in seeing fine details of structure will depend upon the care exercised in this respect.
5. Bear in mind that many of the reagents used are corrosive and hence

should not be brought into contact with the microscope. All the acids and iodine reagents will act upon brass work, potassium hydrate will corrode glass, and alcohol will remove the lacquering from the stand.

6. All objects examined in liquids should be covered, not only to obviate the danger of injuring the objective, but to avoid the inevitable distortion of the image which a curved or uneven liquid surface produces.

7. Let cleanliness and care characterize all your work in the microscopical laboratory. Keep all your apparatus, slides, cover, glasses, etc., scrupulously clean. Do not touch the glasses of the objectives or eye-pieces with your fingers, for that would be to soil them and impair their optical performance. Whenever they need cleaning, breathe upon the glasses and wipe them either with a piece of perfectly clean and soft linen cloth, or with a piece of the thin, soft paper that is sold at dental supply stores under the name of Japanese filter paper. A convenient way is to keep always at hand, in a place secure from dust, a quantity of this paper cut into suitable sizes. It is useful, also, for cleaning cover-glasses, slides, etc. If a fresh piece is used each time for cleaning an objective, there will be little danger of marring the polish of the front lens.

Keep the bottles containing reagents, staining fluids, etc., stoppered when not in use, so as to exclude dust and prevent evaporation; and take special care in using them not to introduce impurities into them.

8. In cutting sections, the razor or section knife should always be very sharp, and for most purposes sections should be cut quite thin. Steadiness in cutting is secured by resting the wrists against the body. The knife should be given an oblique or sliding motion when drawn through the object. Quite hard tissues may be successfully cut if the sections are cut quite thin, but if the edge of the knife is allowed to run too deep, it is liable to be notched. Portions of thin structures like leaves, petals, etc., may readily be sectioned by placing them between pieces of elder or sunflower pith. Always clean the knife after cutting with it, and do not allow fragments of tissue to dry upon it. Sections of fresh tissues, or of those that have been preserved in any of the preservative fluids, should immediately be placed in liquid after cutting, to prevent air from getting into the cells.

9. In all your work with the microscope, proceed understandingly. Endeavor to know the reason for every test you are called upon to apply, and be careful in interpreting the results of each test. Do not rest satisfied until you thoroughly understand every tissue and structure given you for study.

10. It is excellent practice for the student to keep an accurate record in writing, and by means of drawings, of all the facts observed and the work done by him in the microscopical laboratory.—Bastin's College Botany.

THE ODOR OF BENZOIC ACID.—Benzoic acid is said by Passy to be odorless when pure and alone, but if diluted with any medium a characteristic odor at once reveals itself.

J. E. BROWN, Cairo, Ill.—There is nothing about the ERA I do not consider first-class.

VEGETABLE FERMENTS.

Mr. J. R. Green in *Annals of Botany* (Science), has a long paper on vegetable ferments, embodying a digest of the present state of our knowledge. "Provisionally," says the author, "these bodies may be classified according to the materials on which they work. We may thus make four well-marked groups, excluding those which are obtainable from micro-organisms, as well as one or two whose action has not been thoroughly investigated. These groups will be: (1) Those which attack carbohydrates. These will include the different varieties of diastase, the ferment transforming inulin, the invertase which breaks up cane sugar, the cytohydrolysts attacking cellulose, and the ferment which forms vegetable jelly from pectic substances. (2) Those which decompose glucosides, with formation of sugar and various aromatic bodies. Of these the best known are emulsin or synaptase, myrosin, erythrozym, and rhamnase. (3) The proteolytic group, including vegetable pepsin, trypsin, and rennet, resembling very closely the animal enzymes bearing the same names. (4) The enzyme that decomposes oils or fats." The common or translocation diastase has a wide distribution in plant cells, and Baretzky suggests that it is universally present so long as the cells are living. It slowly dissolves starch, converting it into sugar.

A more active form known as diastase of secretion destroys the starch grain by corrosion. It occurs in various grains, but only at the commencement of germination, being apparently secreted by the epithelial cells of the scutellum, but according to Haberlandt by the aleurone layer in the barley grain. Inulase occurs in the artichoke, dahlia and various other compositae. It first appears in the germinating tubers, converting the inulin into sugar. Invertase occurs in a variety of vegetable substances,—yeast, bacteria, fungi, malt, buds and leaves, pollen, grains, etc. It has the power of inverting or hydrolysing cane sugar into dextrose and laevulose. It occurs also in animals. A cytohydrolytic ferment probably occurs in the endosperm cell of palm seeds, but no one has yet been able to isolate it. The author cites De Bary's well-known experiments on the extrusion of a cellulose dissolving substance from the hyphae of certain Pezizae, and Marshall Ward's on the lily *Botrytis*, and thinks that such bodies are not exceptional in the vegetable kingdom. Brown and Morris have discovered a similar enzyme in germinating barley grains. Pectase occurs in a variety of plants, carrots, beets, fruits, etc., and has the power of converting cellulose into gum. Emulsin occurs in certain Prunoidae in the vicinity of the fibro-vascular bundles. It decomposes amygdalin into sugar, benzoic aldehyde, and prussic acid, and also decomposes many other glucosides. Myrosin is the characteristic enzyme of the Cruciferae, but is probably not confined to this order. It breaks up the very complex glucosides abounding in Cruciferous plants into sugar and certain strong-smelling compounds generally containing sulphur. This enzyme occurs in special cells variously distributed. The strong smell of black mustard seed when bruised and covered with water is due to the liberation of sulphocyanate of allyl from contact of this enzyme with the glucoside, sinigrine, contained in other cells of the seed. Rhamnase occurs in the seeds of the Persian berry, *Rhamnus infectorius*.

It decomposes a glucoside, xanthorrhainin, into glucose and a bright yellow dye, rhamnetin, the glucoside occurring abundantly in the pulp of the fruit and in the pericarp. Attention was first drawn to this enzyme by the discovery that decoctions of the pericarp alone would not produce the dye, but that it developed at once when mixed with a little of the crushed seed. Subsequently Marshall Ward found out that the enzyme was located in a very small part of the seed, viz., the raphe, and that no other part of it would decompose the glucoside and produce the dye. Erythrozym occurs in the madder root, and there are yet other glucoside-enzymes, but less well known. Pepsin, or ferment, very closely resembling it, and provisionally to be classed with it, occur in *Drosera*, *Dionaea*, *Pinguicula*, and other insectivorous plants. Probably the ferments found in *Nepenthes*, *Sarracenia*, and *Aethalum aptium* come also along here. They are capable of dissolving proteids, connective tissue, cartilage and gelatine, and are most active in a slightly acid medium, strikingly resembling in these particulars the pepsin of the stomach. Trypsin, capable not only of converting proteids into peptone, but also of breaking up the latter into amide bodies, occurs in the pawpaw (*Carica papaya*), the fig, and a melon (*Cucumis utillissimus*), the natives of India having for a long time made use of this fact by cooking certain fruits with tough meat to make it tender. A similar enzyme exists in the juice of the pineapple, in the seeds of vetch, hemp, flax, barley, castor beans and lupins, at the time of germination. Dacommo and Tommasi have also described a proteo-hydrolytic ferment from *Annakallis arvensis*, the fresh plant disintegrating fresh meat or fibrin in thirty-six hours when kept in contact with it at 69° C. Rennet occurs along with trypsin in commercial papain, in the juice of the pineapple, and in the seed of *Ricinus*. It has also been extracted in recent years from a variety of seeds, some before and others during germination. Lea has given quite a full account of its preparation from the seeds of *Withania coagulans*, a Solanaceous shrub of Afghanistan and northern India, and the author has found it in seeds of *Datura Stramonium*, *Pisum sativum*, *Lupinus hirsutus*, etc. It also occurs in the pericarp, pulp, and expressed juice of the ripe fruit of the *Naras* (*Acanthosicyos horrida*), a Cucurbitaceous plant of South Africa. The power of curdling milk also exists in the flowers of *Gallium verum*, a plant still used in west England by cheesemakers; in the leaves of *Pinguicula vulgaris*, first noted by Linnaeus, as in use by Lapland tribes for this purpose, and said by Pfeffer to be still used in the Italian Alps; in the glands of *Drosera*, noted by Darwin; in the stem of *Clematis vitalba*; and in the petals of the artichoke. Fatsplitting enzymes have been discovered in seeds of *Ricinus*, rape, opium-poppy, hemp, flax and maize. In the castor bean it is distributed throughout the whole endosperm.

These ferments seem to arise from vegetable zymogens, the existence of which was first established by Vines in experiments on *Nepenthes*. The constitution of enzymes is still in dispute. Loew, as the result of analysis, considered them to be proteids closely allied to the peptones, but spectrum analysis and other evidence has now made this doubtful. Vegetable ferments are readily destroyed by boiling,

and are for the most part very sensitive to acids and alkalies, a slight excess destroying them or stopping all action. They are not readily identified in tissues by use of stains. Some are very unstable. Enzymes have very slight power of diffusion. They can make their way through cell walls, but not through the parchment walls of dialyzers. They appear to act in an ordinary chemical way, causing hydration (myrosin excepted) and subsequent decomposition. Most of the changes brought about by enzymes can be effected in the laboratory by ordinary chemical processes. They are extracted for experimental purposes by water, salt water, or glycerine, and are quickly precipitated by excess of alcohol. One of their most striking peculiarities is the enormous power of conversion they possess, a sample of invertase being capable of inverting 100,000 times its own weight of cane sugar without injury to itself. The ferments of the fungi and bacteria are also enzymes, and the old view of Naegeli that there are two distinct classes of ferments, organized and unorganized, is no longer tenable. Enzymes have been isolated from a number of bacteria, and even several from the same organism,—in case of the potato bacillus, *B. mesentericus vulgatus*, no less than five, viz., diastase, invertase, rennet, a proteo-hydrolytic enzyme and one destroying the middle lamella of vegetable cells.

ATMOSPHERIC NITROGEN.

One of the most important experiments in economic agriculture has been undertaken by the Illinois experimental station, says the American Cultivator. Its object is to discover whether the excrescences which naturally form on the roots of clover, peas and other leguminous plants, and which enable such plants to decompose the atmosphere and use its nitrogen, may not be also made to grow on corn, oats and other plants of the grass family. If this can be accomplished it will be possible to make corn, oats and wheat renovating crops, as clover and peas now are. The process of experimenting is to inoculate corn and oat roots with the bacteria taken from the warts on the roots of clover. This must be done gradually, as the bacteria from clover will not live if given at first an entirely different kind of plant to feed on. The bacteria are propagated at first in a culture media, only a portion of which consists of watery solutions of clover.

So far the experiments have entirely failed on oats, but they have been partly successful on the roots of Indian corn. The corn plants whose roots were inoculated were slightly more thrifty and had more fine roots. It was bacteria from a corn extract that was tried upon oats. Perhaps if an oat extract had been used for propagating the bacteria inoculated in that plant it also would have been a partial success.

It will be interesting to note if we can give individual plants of corn or other grains the power of appropriating atmospheric nitrogen, whether the great modification in the nature of the plant thus made will be continued in plants grown from the seed. Unless this can be done the discovery will be of more speculative than practical interest. If it can be done its practical importance will be greater than almost any other discovery of recent times.



FREDERICK F. INGRAM & CO.

This firm is one of the important factors in the making of Detroit's reputation as a great center in the business of manufacturing pharmacy. The active conduct of its business devolves upon the senior member, Mr. Ingram, who was born at Hastings, Mich., in 1856. His experience in the drug business has been that which comes from service in the several capacities of clerk, proprietor of retail store, traveling salesman for a manufacturing drug concern, and as part proprietor of a small manufacturing business, which has, in less than ten years, grown through energetic methods into a large one, which is widely known to the drug trade of the country. The business was established in 1882, and the present plant and offices of the firm are located at 37-39 West Larned street, occupying an imposing structure of brick and iron, six stories high, with a floor space of 23,000 square feet. The establishment is fully equipped with all the modern appliances for economical manufacturing, and the products of the firm embrace everything which the terms "manufacturing pharmacists and perfumers" imply. Besides the making of standard preparations, the firm is widely known through their specialties, the most famous, perhaps, of which are "Wing's Perfumes." This line of fine odors, introduced in 1883, has so grown in favor, that their sales have quadrupled within the last three years. This firm long ago discovered that people want something new, even in medicines, and their efforts have always been to fill this demand, as is shown by the many novelties and new preparations which they are constantly offering the trade. This feature of their business is recognized both by the offering of new and improved formulae, and in the continued improvement in the styles of putting up their goods, so that the retail trade is getting quite in the way of sending for some of Ingram's "new wrinkles" whenever times are hard, and the trading appetite of the public needs stimulation. One of their latest products in this line is a cachou, called "After the Ball," and as an illustration of "what's in a name" they find they can hardly make them fast enough to fill orders. This firm also has an extensive trade in "non-patent" domestic remedies, and the catalogues and "Poison and Liquor Register" which they distribute free, are fine samples of typographical art. In addition to their Detroit house they have branch offices at 110 Randolph street, Chicago; 258 Washington street, Boston, and 225 North Ninth street, Philadelphia.



DAVID H. TAYLOR
Mgr. Wind-or-Laboratory



DAVID M. GRAY
Mgr. Travelling Dept.



HENRY A. STEARNS
Mgr. Scientific Dept.



NORMAN T. PRASE
Mgr. New York Office.



FRANK C. McLAUGHLIN
Vice Pres. & Treasurer.



FREDERICK STEARNS
Ex-Pres. Retired 1887.



FREDERICK K. STEARNS
President & Gen'l Mgr.



THOMAS BENNETT
Secretary.



W. L. L. STEARNS
Assistant Treasurer.



L. H. GARDNER
Superintendent.



N. A. TABOR
Mgr. General Office.



WAYLAND D. STEARNS
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SAMUEL C. STEARNS
Assistant Secretary.



W. A. RICHARDSON
Manager London Office.



M. H. GATELL
Manager Spanish Dept.



WM. G. RANKIN
Ass't Superintendent.



ALBYN D. STEARNS
Manager Pill Dept.



ROBERT H. ROE
Mgr. Australian Business

THE EXECUTIVE STAFF OF FREDERICK STEARNS & CO.



FREDERICK STEARNS & CO., DETROIT.

IN considering the gradual development of our modern industrial system, it is a matter of considerable interest to speculate as to the period when the first perceptions of the economy of the distribution of labor began to dawn upon the mind of the human race. This thing that is now so plain to us—the superiority of one man and a machine over a large body of men—is something that has come to us by degrees, each year seeing an increase of the machine and a decrease in the expenditure of manual effort in the making of things. Instead of every man grinding his own flour and baking his own bread, ten men grind the flour for ten thousand, and another ten men can bake it. The same plan operates in the fabrication of our shoes, clothing and other necessities and conveniences of life, and there is no reason why it should not apply to the making of our pills.

Our last census gave us some astonishing figures upon the manufacture of drugs and chemicals in this country, these of course including much material used for technical purposes, but at the same time, the consumption of those agents which, to borrow a term of our medical friends, are used to "assist nature" in curing us of our ills, is something enormous, and naturally gives rise to the question, what creates all this value and where does it all come from? With the general public the answer is quite easy—the material comes from the drug store and the druggist receives the money for it. The apothecary could answer for himself by saying that certain things come from the Indies, the South Sea Islands, Timbuctoo, or the depths of the sea, as the case might be, but he would realize at the same time, as he looked at the thousand and one things of his varied stock, that there must be a great deal of unwritten history connected with them. The acacia might tell him a romantic tale of the caravan; his quinine might tell him wondrous stories of Java and its volcanoes, or of snow-capped Andes; his sarsaparilla might paint the glories of a tropical forest; and his cod liver oil could possibly relate some thrilling adventures of the modern Vikings or Norsemen. His pharmaceuticals and finished products might continue the narrative, and, although the latter might lack that peculiar enchantment which distance gives, yet a glance at the influences which have shaped their course, and finally guided them to his

shelves, could not fail to be of interest to him.

To obtain an idea of the great magnitude and diversity of the business of pharmaceutical manufacturing, with its economy of labor and elaboration of product, there is perhaps no better plan than to pay a visit to the establishment of Frederick Stearns & Co., situated at Detroit, Michigan. Here can be seen in operation upon a large scale all the many processes which in a great degree go to make up the science of pharmacy; and here all the varied forms of medication which the profession of medicine can demand are turned out. This establishment, of which an illustration is given above, is one of the largest of its kind in the world. It is situated on 21st street, in the western part of the city, and occupies an entire square, with a frontage of 300 feet and a depth of 180 feet. As the building was constructed especially for the purpose for which it is used, its general arrangement is such as to afford the greatest convenience and economy in the storage, manufacture, handling and shipping of the various products manufactured. The building is three stories high, rectangular in shape, and encloses two open courts which give convenient access for teams to all the different departments of the establishment. These courts are reached by an arched entrance on the 21st street side, and it is through this that crude drug material from all parts of the earth enters the works, finally to emerge in the shape in which it appears upon the shelves of the druggist. It seems rather an anomalous condition in industrial affairs when we imagine what often occurs in the passage of drugs through this arched gateway. A load of Cascara Sagrada enters, and the wagon wheels touch those of another vehicle conveying a load of Cascara Aromatic just starting on its journey to the Pacific Coast. The eucalyptus of Australia could, if it were animate, exchange greetings with a more polished and educated portion of its family on its way back to its original home. The newly arrived coca from Bolivia might witness the departure of a consignment of some manufactured product bearing the same name, on its return journey to Cochabamba. Thus it is that there is a constant passing of crude products, coming from the most remote portions of the world to experience the mutations which the knowledge of man and

the skill of his machines can give them, and many of them emerge in their improved condition to be returned to the same people who originally furnished them.

To follow in detail the various manipulations which belong to the manufacture of medicinal preparations is an exceedingly interesting procedure, and where such are reduced to a perfect system, as is the case in the laboratory of Frederick Stearns & Co., the subject becomes all the more interesting. Commencing at the north building, or that portion of the works comprising the wing to the left in the illustration, there will be found upon the first or ground floor the department devoted to the manufacture of Stearns' (now well-known) Wine of Cod Liver Oil. Two large rooms upon this floor are devoted to this product, one containing five large extracting machines, large tanks fitted up with power agitators, each with a capacity of 120 gallons, and a mixing tank with a capacity of 1,000 gallons, with an attachment of air force pumps, etc., and other appliances for conveying the finished material to a storage room upon the next floor above. The other room is devoted to finishing this preparation, and here can be seen in operation automatic bottling machines, capping machines, and a force of thirty girls busily engaged in labeling, wrapping and boxing the goods. This product, which is now so deservedly popular with the medical profession, is a striking example of the readiness of the pharmacist to recognize the demand for improved methods of administering remedies of known value, and to make use of the most skillful methods in supplying that demand. The therapeutic virtues of cod liver oil are too well known to admit of any discussion of its value, but there have always been objections to its use, which became stronger as the pharmacist gradually showed that his skill was competent along other lines to make the rough way smooth in the matter of taking disagreeable medicines. There grew, therefore, an impatient demand that he rob the taking of cod liver oil of its greatest terror—its abominable taste—and many are the more or less futile schemes which have been employed to encompass this end. With the advance in knowledge of the properties of alkaloids, especially those of animal origin, and their therapeutic value, there began to dawn in the minds of advanced investigators an idea

that those of cod liver oil could be isolated and administered in that form. The credit for this idea belongs to two eminent French chemists, Messrs. Gautier and Mourgues, who gave to the combined medicinal principles of the oil the name "Morrhual." The agent employed in the manufacture of Stearns' Wine of Cod Liver Oil is identical with this, being known as Stearns' Extract of Cod Liver Oil, which extract is twenty-five times stronger in active principles and alkaloids than the plain oil itself. This extract, in combination with wine and peptonate of iron, furnishes a means of administering these important medicinal agents in a manner most agreeable to the patient, and a wealth of clinical reports from leading practitioners of the country indicate that it has achieved an enviable position in the confidence of the medical profession.

Quite appropriately the room adjoining this special department is devoted to another branch of manufacturing pharmacy which has had its growth from the demand for palatable medicines. Here are made the various elixirs, medicated wines, syrups, glycerols, etc. Although the work of this department is such that its success depends more upon the formulae and skill employed, yet the appliances and conveniences are of the best which ingenuity can suggest, and the popularity of the goods of this sort turned out is evidence of the care and skill employed in their manufacture. The production of perfumes is referred to by the firm as one of their "side lines," but the many admirers of Stearns' Fine Perfumes will be loath to regard them in anything but the light of products of great importance, and a glance through the department which adjoins those already referred to will convince the observer that "specialty" would be the better designation. The perfume department embraces a mixing room, freezing room, filling room, finishing room and large fire-proof vaults for the storage of the costly materials, such as musk, ambergris, oil rose, etc., which enter into the manufacture of perfumes. The mixing room contains several large machines for washing pomades, copper agitators, and machines for mixing the perfumes. That the perfumes manufactured by this firm possess those characteristics which should distinguish a fine article, such as fragrance in abundance without disagreeable "loudness," delicacy with sweetness, freedom from sharpness, with permanency and lasting qualities, is quite evident from the great demand which has arisen for them, and that there is a demand for them is further evidenced by the fact that their aggregate sales amount to over \$5,000,000 per annum.

Upon the second floor of the north building is found the Chemical Stock Department, and a dispensing or requisition department for the purpose of filling the requisitions of the differing manufacturing departments for the various drugs and chemicals used in the establishment. Adjoining this is the Analytical Department, in charge of Prof. Charles C. Sherrard, whose duties consist in examining all the materials used in manufacturing, and assaying samples of each lot of fluid extracts manufactured, before the goods are bottled and sent out from the establishment. The department for the manufacture of this firm's famous specialty, Cascara Aromatic, is also located upon this floor. This department has a capacity for turning

out 1,024 pounds of this preparation per day, and the fact that the force is kept busy is quite satisfactory evidence that Cascara Aromatic (Stearns') is in great demand. This particular preparation of cascara sagrada, in which none but two-year-old bark is employed, to obviate the griping qualities of the new bark, was first introduced by this firm in 1889, and such was its success that within two years after its advent the inevitable imitator came forward with his testimony that it was a good thing. But in spite of this the Stearns' preparation seems to be firmly established in the favor of the medical profession, and as the process of manufacture is one which was originated by and is reserved by the firm, it is safe to say that the original Cascara Aromatic will retain the field it has won for itself. It is upon this floor that is found the storage of the Wine of Cod Liver Oil previously referred to. It is quite well understood that this preparation enjoys a large sale, but one is hardly prepared for the sight of four long rows of one hundred and fifty gallons of the finished product. These tanks are always full, as fast as one is emptied it is immediately refilled, so that the stock on hand always aggregates at least 10,000 dozen, and the orders from the large jobbing trade are almost always for round five or ten-gross lots.

The third floor of the north building is devoted principally to storage purposes. From seventy-five to one hundred thousand pounds of cascara sagrada bark are always kept in stock, and the firm state that, so far as they are able to learn, they are the largest users of this bark in the world. Immense quantities of mandrake, sarsaparilla, etc., are also always in store, and on this floor is also found the large stock of glassware which an establishment of this magnitude is always obliged to have on hand. The value of this material always on hand ranges from \$5,000 to \$50,000. The eastern end of this floor is partitioned off so as to be practically isolated from the rest of the building, and is devoted to the manufacture of poison fly paper. It is provided with a cemented floor covered with absorbent material, upon which stand the drying racks for holding the paper after it is taken from the tank holding the solution with which the paper is impregnated. This department has a capacity for 50,000 sheets per day.

The first floor of the middle building is devoted to that important branch of pharmacy—the manufacture of fluid extracts. It is divided into three rooms. The first contains immense screw presses with two hundred tons pressure for thoroughly exhausting the drugs, and large vats and tanks where drugs undergo the macerating process. The second room contains the stills, evaporating pans, kettles, etc., and one especially large still for recovering alcohol. The third room is devoted to the process of percolation, and presents an imposing array of copper and stoneware percolators of from five to fifty gallons capacity. In connection with this department are the podophyllin works, located in a separate building in the court. Here are several large percolators of 150 gallons each, also drying closets, straining frames, drying racks, etc., used in making this important resin. The second floor of the middle building is devoted entirely to the manufacture of pills. In the pill cutting department is found a plant which consists, so the firm

states, of the only complete set of the Colton pill machines in America. This plant includes machinery for making the strips or pipes, as well as that for cutting them into pills. The pill mass is fed into a machine in small chunks about the size of one's thumb, which are carried by means of wide rubber bands running upon two cylinders, between the latter, and rolled into pipes of the required dimensions. These are collected in trays and fed a dozen at a time into the second machine, which cuts them. All that is necessary is to furnish the mass and the machines do the rest. A complete set of such machines with the aid of five girls easily does the work of 25 girls with the ordinary methods of pill making by hand. The capacity of this plant has been proven to be a half million 3-grain pills per day, and the saving in labor through its use is estimated at \$5,000 per annum. The adjoining pill massing room is fitted with a complete line of rollers, varying from 3 inches to 12 inches in diameter, and constructed of steel and porcelain, the latter being necessary for chemicals which would be damaged or altered by contact with metals. The gelatine coating room is supplied with a complete set of apparatus, the process used having been patented by the superintendent of the department, Mr. Allyn D. Stearns. This apparatus does away with the use of needles, using instead hollow tubes from which the air is exhausted and the pills held in place by atmospheric pressure during the process of dipping in the gelatine solution. Twenty girls are employed in this department. The gelatine-coated pills of F. Stearns & Co. are noted for their beauty of finish and were favored with a special award at the World's Fair. The sugar coating pill room is well equipped with ten large revolving copper pans and turn out a product beautifully finished and very soluble. The back building, forming the eastern side of the courts, has a carpenter and repair shop upon the ground floor, in which are made all the tables, shelving, etc., used upon the premises, and the force of carpenters is kept busy doing the general repair work of the establishment, fixing packing boxes, etc. The drug milling department also occupies two floors of this building, the machinery upon the first floor being used for powdering. Chaser mills are used for this purpose, each consisting of two large mill stones set upon edge and revolving upon an enclosed circular bed of the same material. They are enclosed in tight wooden boxes or houses, and as the material becomes reduced to an impalpable powder the greater part rises as dust and settles upon the space outside the enclosed stone bed and the walls of the houses. The second floor is equipped with machinery for grinding, and includes three disintegrators, turning at the rate of three thousand revolutions per minute, each having a grinding capacity of one ton per day of ordinary drugs. This department is also well supplied with root cutters, sifters, ball mills, grist mills, etc. The condition and poultry powder department is located immediately adjoining the milling department, the extent of the firm's business in this line being great enough to keep a large force employed in grinding, putting up, wrapping and packing this class of goods. One large room in this part of the building is devoted to the manufacture of compressed lozenges, tablets, tablet triturates, etc.,

four large power machines being employed on this class of work. The department for the manufacture of Effervescent Granular preparations is well fitted with complete apparatus in the shape of porcelain steam kettles, dry racks, etc.

The south building, or that portion of the main building shown upon the right in the illustration, is devoted to the printing office of the establishment and the "non-secret" medicine business. The former consists of a composing room where the typesetting for all the labels, wrappers and circulars used by the firm is done, as is also that for the neat little monthly publication issued by the firm and called "The New Idea." This sprightly journal occupies a unique position in pharmaceutical journalism, as it sails under its own colors as a professed organ of the business in which its publishers are engaged, but at the same time it has made many valuable contributions to the literature of pharmacy since its inception in 1879. The printing department is equipped with fifteen printing presses, four of them large cylinders, power paper cutters, folding machines, wire stitchers, ink grinders, in fact all the appliances necessary to turn out a bound book in the highest style of the art. The typographical excellence of the printed matter issued by this firm is especially noteworthy, and they take considerable pride in the fact that they can turn out as fine color work upon their own presses as they can obtain anywhere in this country. As examples are their own work upon calendars, blotters and similar tasty little works of art, which they send out to their customers and friends from time to time, all of them gems in their line, and their work upon their calendar for 1894, which consisted of a reproduction of a painting photographed in natural colors which, besides being the first work of the kind ever offered to the public, was of a character which an establishment devoted exclusively to such work might be proud to own. The label stock room adjoining the printing department is filled with pigeon-holed cases containing many thousand different kinds of labels, the total stock of these numbering several millions.

The ground floor contains the "grease" department, with its machinery for making ointments, suppositories, cosmetics, etc., and specially constructed centrifugal churns for the manufacture of emulsions. Upon this floor is also found the "non-secret" manufacturing department. This idea of furnishing domestic remedies of approved formulae, to take the place of the secret and high-priced "patent" medicines, was originated by this firm in 1876 and the proportions to which it has grown and the number of firms now similarly engaged, is good evidence that the plan which was christened "The New Idea" finds great favor with the retail drug trade. This department is equipped with mixing tanks, hydraulic filters, strainers and pumps for conveying liquids into the adjoining bottling department, where are found automatic filling machines, the ordinary gravity filters and special force pump filters for thick liquids, such as syrups, emulsions, etc. The bottle washing room is an interesting department even to those who have passed the period of apprenticeship. Automatic bottle washers (the invention of the firm), bottle dryers, etc., make up a plant for the rapid cleansing of bottles,

which for rapidity and effectiveness of work is hard to excel.

The first floor of the southern portion of the building fronting on Twenty-first street is devoted to the storage of filled stock; the non-secret finishing room, 120 by 30 feet in extent, in which forty girls are employed; and the packing and shipping department. In these latter rooms all the different items of a customer's order are assembled, and got ready for shipment. Sawdust is the packing mostly used, and is brought to the works in wagons and conveyed to huge bins on the third floor by means of blowers. As the packers arrange the different articles in the packing cases, a slide is opened at intervals as the packing progresses, and the saw dust allowed to slide down a chute and fill the spaces between the articles being packed. After being marked the packages are then ready for shipment, and the directions upon some of the cases show that their journey is to be a long one. Among the orders ready for shipment could be noticed the names of Scott & Co., Rangoon, Burmah; Sen & Co., Delhi, India; N. S. Fernando, Colombo, Ceylon; Newzealand Drug Co., Christchurch, N. Z.; Lennon & Co., Cape Town, S. A.; F. D. Shepard, M. D., Aintab, Turkey; Salvador Alsina, Barcelona, Spain; Artega Revenga & Co., Caracas, Ven.; Dr. C. Lopez Lascaro, Guayaquil, Ecuador, and many others in as equally remote corners of the earth. Upon the second floor of this section of the building is found the department with special machinery for the manufacture of cartons and knock-down boxes, the paper stock room, and the bindery, where the work of folding and stitching the various publications of the firm is done, mostly by machinery, only the gathering of the printed sheets being done by hand. The seidlitz powder room upon this floor contains new and ingenious machines devised by Stearns & Co., for weighing and measuring the powders. These machines work automatically, and insure the highest degree of accuracy in the powders which they deliver. This firm has always been favorably known for the high quality of the material used in their seidlitz powders, and for the attractive forms and original styles in which their goods in this line are put up, their latest attraction being a large envelope with the powders each in a small envelope, these latter being wrapped in waxed paper.

In another room a dozen girls are employed putting up Stearns' Instant Headache Cure. This preparation enjoys a remarkable sale, considering the fact that the formula is not secret, and not a dollar has been spent in advertising it to the general public. It is put up in cachets which are imported, but the work of making the preparation and the filling are done at Detroit. The foreign factory furnishing these cachets state that F. Stearns & Co. are the largest consumers of their goods in America, their orders sometimes exceeding a million cachets a month. This preparation is handled by all the prominent jobbers, and it has had great success in holding its own wherever introduced. An adjoining room, made dust tight, is used for the handling of powders such as tooth, insect, etc., and goods of a similar light character. The remaining departments upon this floor are a large room devoted to the packing, labeling and finishing of pills for shipment, and another room devoted to the

work of getting out agents' samples and keeping their traveling outfits supplied. Almost all the entire top floor, which is 220 by 30 feet, is devoted to the manufacture and storage of paper boxes. It is equipped with the most modern and improved machinery, employs fifty hands, and turns out every kind of box used in the institution except the folding cartons previously mentioned. Frederick Stearns & Co. have the reputation of putting out the handsomest packages of any house in their line of business and an inspection of the work done in this department seems to prove it.

The boilers and engine which furnish the motive power for this great establishment are in an isolated building located in one of the courts. This location affords a great protection against fire. Two boilers supply steam for the engine and for heating the buildings. In the engine room is located a dynamo which generates the electricity for lighting all those departments of the establishment where alcohol or other easily inflammable substances are used. The other departments are lighted by gas made on the premises by means of a Michigan gas machine, which supplies about 400 jets. As there are 300 electric lights in the building the firm may well claim to have one of the best lighted laboratories in the world. Adjoining the engine room is a well-equipped machine shop, where an experienced machinist is kept continually employed in making new appliances, or repairing old ones. Much of the machinery used by F. Stearns & Co. was made in this shop, such as their gelatine pill plant, centrifugal emulsifiers, seidlitz powder, bottle capping machinery, etc. Over the boiler room is an extensive dry room fitted with iron racks, blowers, etc., where all green drugs in bales are stored before being ground in the mill room, which is close at hand.

The foregoing is but a brief mention of the various departments which go to make up this great pharmaceutical establishment. The great engine furnishing the motive power to drive the machinery has been referred to, but the visitor in search of the real motive power should turn his attention to the offices where all the business of the firm is transacted. These are situated upon the first floor facing 21st street, and extend from the main (and only) entrance, near the middle of the building, to the north end, a distance of 180 feet. Owing to the fact that this space is divided up into fifteen offices, including those on the second floor, the effect is not so imposing as it would be were they all in one large room; but for retirement and quiet in the transaction of business the arrangement has decided advantages. Entering the front door, one comes into the reception office, where a girl is in attendance to wait upon the visitor and convey his message to the person whom he wishes to see. Adjoining this office is the city or telephone office, where all the city telephone business is done, and where telegraph messages are sent and received. In this room is a circulating library donated by the firm for the use of all its employes. The next office is that of the superintendent, Mr. L. H. Gardner. In here is found the formula department, from which every formula used in the laboratory must be obtained by proper requisition. Such a perfect system of checking is observed in this department that mistakes are almost, if not entirely, out

of the question. The General Office is the next in rotation, and is presided over by Mr. N. A. Tabor, who has charge of orders, collections and claims. Here the mail is opened and distributed, orders entered and priced, drafts sent out, letters copied, etc., etc. This office employs twenty persons, including three stenographers, and is an exceedingly busy place. Off from the main office is a large fire-proof vault, 10x30 feet in extent, in which are kept the account books, order books and safe. Next adjoining the main office is that of the vice-president and treasurer, Mr. F. C. McLaughlin, who, with his secretary, is pleasantly located. Mr. McLaughlin, in addition to looking after the finances of the firm, attends to the buying, which in itself is enough to keep any man busy the better part of his time. The next room is occupied by the assistant treasurer, Mr. W. I. L. Stearns, who, in addition to the duties of that position, has charge of the private formula work. Directly across the hallway is the office of the assistant superintendent, Mr. W. G. Rankin, and next in order is the book-keeper's office, where four experts keep the accounts only, all the other clerical work being done in the main office. Next comes the office of the secretary, Mr. Thomas Bennett, who is assisted by Mr. S. C. Stearns, assistant secretary, two clerks and a stenographer. Mr. Bennett has entire charge of the foreign business, which takes up the greater part of his time, although he also attends to the correspondence of inquiry, and makes quotations on goods. The next office in order is that of Wayland D. Stearns, assistant general manager, who has the assistance of four clerks and a stenographer. The last office on the ground floor is that of the president and general manager, Mr. F. K. Stearns. This is fitted up modestly, yet in good taste, and, being the most remote from the works, is quiet and retired. Returning to go upstairs, one passes through the letter file room, where are stored away the thousands of letters and orders received during a single year only. A stairway in this room leads up to the agents' reception room and office of Mr. D. M. Gray, manager of the travelling department. It is here that the "travelling boys," some fifty in number, meet and compare notes, do their correspondence, etc. Mr. Gray's only assistant is his stenographer. Adjoining Mr. Gray's office is that of Mr. M. R. Gatell, manager of the Spanish Department, who attends to all the correspondence, making out of orders, arranging for the printed matter for the same, invoicing, etc., and who, being a skillful typewriter himself, needs no assistant for such work. The last office to be mentioned is that of the Physicians' Department, in charge of Dr. W. B. Winn. Here is kept account of the work of the detail men and the general correspondence with physicians. Dr. Winn has two stenographers and a clerk.

The various departments of the laboratory number forty-eight, and all are under the direct supervision of registered graduate pharmacists, so that all the operations of manufacturing receive that careful attention which only a thorough knowledge of all the details of the science of pharmacy can give.

In addition to the Detroit laboratory, the firm has another establishment at Windsor, Canada, in charge of Mr. Irving H. Taylor. This branch has charge of the firm's trade in the Dominion, and is fully

equipped for the manufacture of everything in the pharmaceutical line. The New York office at No. 1 B Platt street, is in charge of Mr. N. T. Pease. The London, Eng., office at 25 Lime street, is in charge of Mr. W. A. Richardson, resident manager. The Australian business is looked after by Mr. R. H. Itoe, who has an office at 37 Pitt street, Sydney, N. S. W. The maintenance of these offices is necessary on account of the firm's extensive foreign trade, which they estimate at about one-fifth of their output. They enjoy the distinction of being the first American pharmaceutical manufacturing house to engage extensively in foreign trade, having commenced in South and Central America in 1882, and in Australia, India and South Africa in 1885; and their elegant publications in the languages of these foreign countries have been important factors in the development of this trade. In addition to the executive staff mentioned, the firm employs between four and five hundred persons, and has a force of fully fifty travelers, including detail men, who are kept busy the year round informing the medical and pharmaceutical world of the superiority of the firm's manufactures, calling especial attention to their specialties, the Wine of Cod Liver Oil, Cascara Aromatic, Haemoferrum (Blood Iron), their delicious Kola Cordial and Dike's Pepsin, and in this connection it is quite pertinent to state the first two mentioned each received an award at the World's Columbian Exposition, 1893, the total number of awards received by the firm being fifteen.

A reference to the personnel of the house of Stearns would be incomplete without a mention of its founder, Mr. Frederick Stearns, who, although a stockholder in the business, has had no official connection with the firm since his retirement, in 1857. Mr. Stearns, senior, came to Detroit in 1855, and engaged in the drug business, and his successful experience of over thirty years as retail and wholesale druggist, and finally as head of one of the largest manufacturing establishments in the country, is one which falls to the lot of but few men. Although he still retains great interest in the affairs of his chosen profession, his later labors have been mostly those of a citizen of the republic of letters. He has traveled extensively in foreign countries, and his knowledge of the history, customs and manners of some of these, especially China and Japan, has earned for him much favorable notice as a collector of curios and as a lecturer and writer upon the latter countries. The Stearns collection of Japanese and Korean art objects, numbering some sixteen thousand pieces, which was presented by him to the Detroit Museum of Art, has been pronounced the most carefully selected, typical and complete collection of its kind in this country.

WORLD'S FAIR PICTURES.

Later parts of the Michigan Central's World's Fair Portfolio fully justify the claim made upon the publication of the first number, that it was the best, the finest and the most artistic of popular publications on the White City.

Each part contains sixteen (16) large plates and is sold for only ten cents. If you haven't seen it, the nearest Michigan Central ticket agent will show it to you, or you can write to O. W. Ruggles, G. P. and T. Agent, Chicago.

PEANUT OIL.

As a result of the inquiry instituted by the State Department upon the peanut-oil industry in foreign countries, which was mentioned in the Era of February 15, the United States Consul at Frankfort, Germany, reports as follows:

"I have the honor to acknowledge the receipt of special instruction No. 127, dated February 5, directing me to submit a report concerning the manufacture in Germany of oil, oil cake, and meal from peanuts, and particularly the extent to which peanut meal is used for food in the German army and navy. In compliance with this instruction, I respectfully submit herewith a report, with which are included as exhibits samples of peanut meal, flour, and biscuits, as prepared by the most approved methods in this country. These samples are of essential value to the report.

The use of peanut products by the German army and navy has not yet passed the experimental stage. An elaborate series of trials was completed only a fortnight ago, and the results have been reported officially to the Minister of War.

Peanuts vary greatly in value according to the quantity, and still more the quality of oil which they contain. The finest and most valuable come from the valley of the Senegal, in western Africa, while the lowest grades come from Madras. The principal varieties are graded in the market according to richness in oil and general merit as follows (the percentages being based upon equal weights of shelled kernels in the condition for grinding): Senegal peanuts, 51 per cent; Congo peanuts, 49 per cent; East African peanuts, 49 per cent; American peanuts, 42 per cent; Bombay peanuts, 44 per cent; Madras peanuts, 43 per cent.

The duty on raw peanuts imported into Germany is \$4.70 per metric ton (2,240 pounds), and the duty on peanut oil is \$2.33 per 100 kilograms, equal to about 9 cents per gallon.

The ordinary peanut or "earth nut," is the seed vessel and seed of the *Arachis hypogaea*, and grows in several of the Southern States of the Union, in Brazil, the East India, and on the east and west coasts of Africa. In 1891 there were imported into Germany 15,762 tons of peanuts, a slight increase over imports of the preceding year. The receipts declined to 13,158 tons in 1892, but rose in 1893 to 20,573 tons, of which 25 tons were purchased in New York, 5 tons in Brazil, while 8,471 tons came from West Africa, 5,431 tons from East Africa, and 7,040 tons from British East India. This large supply of imported peanuts is used for the manufacture of oil, and is consumed by about twenty-seven factories which are located in various parts of Germany, some of the principal ones being at Hamburg, Mannheim, and at Heilbronn, in Wurtemberg.

At the oil mills the kernels are ground or crushed and submitted to three successive pressings, in which a force of about 250 atmospheres is employed. The first pressing expels about 40 per cent. of the oil, the second 4 per cent and the third pressing from 2 to 3 per cent of the remainder. Cold-pressed oil of the first pressing from African or the best American peanuts is used in Germany as salad oil and for various culinary purposes. It ranges in price (wholesale) from \$14.75 to \$25 per 100 kilograms (approximately from 56.7 cents to \$1 per gallon), which is far cheaper than any edible quality of olive

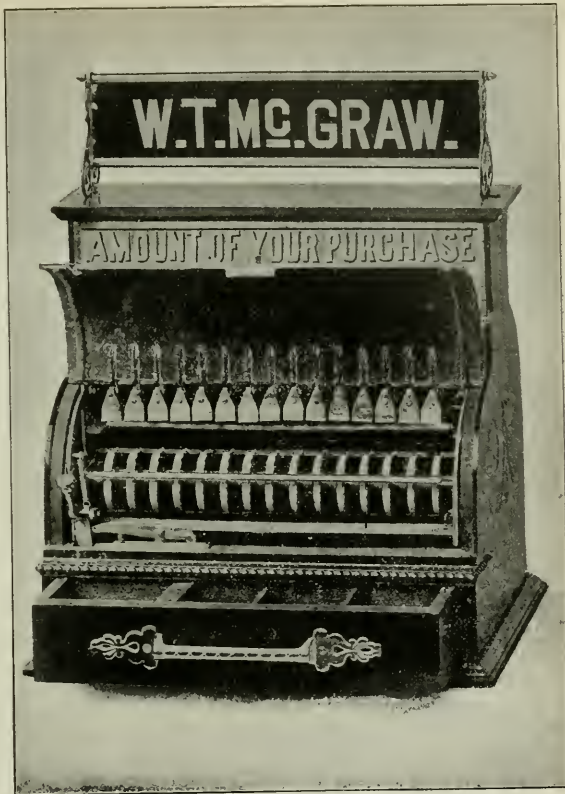
oil can be imported and sold in this country. The American peanut is larger, sweeter, and, when roasted, better flavored than any of the others, but its oil is of medium quality and ranks below the African, being worth in the present market \$15.47 per 100 kilograms, or 59 cents per gallon. Oil from the East Indian peanut ranges in value from 40 to 50 cents per gallon, and like the last pressing from African and American nuts, is not used directly for food, but is consumed in the manufacture of soap and for various other technical purposes, among which is included the "fattening" of oleomargarine.

The most important secondary product of peanut-oil manufacture is the oil cake or meal which remains after the oil has been, as far as practicable, extracted by pressure. This sells for from \$30 to \$33 per ton, and until within a year or two past has been used in Germany exclusively as food for cattle, sheep, and to some extent for horses, though it is said that it is too rich and heating for working animals, and except in the coldest weather, causes excessive perspiration unless fed in small quantities and mixed with grains. Under chemical analysis peanut-oil meal shows such extraordinary richness in nitrogenous elements that the German savants have seized upon it as an obvious source of cheap and highly concentrated material for human food, adaptable not only to army and navy rations, but of timely and important value to the peasant and industrial classes, which have suffered from a long and nearly exclusive diet of bread and potatoes, unmixed with a due proportion of nitrogenous animal food. This has led to a series of experiments which are still in progress, and to the invention by Dr. Nordlinger, a chemist at Bockenheilm, of a series of preparations from peanut meal which seem destined to play an important part in the future food economy of the German people. The problem was to convert a waste material—the secondary product of oil manufacture—into a palatable, nutritious, and wholesome form of human food, cheaper in cost than the same equivalents of nutrition could be supplied in any other form, and susceptible of simple and easy preparation by any cook of ordinary intelligence. How satisfactorily this result has been already attained is shown by the four samples which are submitted with this report, and which represent the principal forms in which oil cake from peanuts is prepared by the Rademann Food Product Factory, of this city, under the processes of Prof. Nordlinger. These are:

(1) Peanut grits (Erdnussgrütze).—The coarse meal dried, purified, bolted, and packed in paper-mache boxes containing one German pound each, which is sold at retail for 12 cents. In this form it is used for soups, cakes, and is cooked like a vegetable as pure.

(2) Peanut flour (Erdnussmehl).—Similar to the above except that the meal is ground and bolted like ordinary flour. Both these preparations give the following analysis: Water, 4.8 per cent; protein substances, 48.5 per cent; oil, 22 per cent, and carbo-hydrated elements, 17.9 per cent.

(3) Peanut biscuits.—Dry light, highly palatable biscuits, or "crackers," containing 1.85 per cent of water, 34.84 per cent of protein substances, 21.51 per cent of oil, 33.64 per cent of starch, 2.73 per cent of inorganic ash, and 5.34 per cent of various other nitrogenous elements."



DETROIT TOBACCO CO.

The above illustration shows the interior mechanism of the new Detroit Cash Register, the general appearance of which is shown on advertising page 23 in connection with the advertisement of the Detroit Tobacco Company. All the work of recording sales is done by an ingenious arrangement of wheels; it shows how many times the drawer has been opened for change during the day, and it is impossible to open and close the money drawer without registering. It registers any amount from 1 cent to \$20, and has a capacity of \$2,200 for each day's work before resetting to zero. The Detroit Tobacco Co., who call the attention of the drug trade to the machine, are a successful firm who have been in business in Detroit for a long time, and enjoy an enviable reputation for commercial integrity, and we believe they will faithfully perform anything they advertise to do. They offer one of these cash registers free with an order for 1,000 of any of their popular brands of cigars. They send 200 cigars for examination, to be returned if not satisfactory, and will send the remaining 800 with the register, if the cigars suit.

The Larimore Falls Medicine Co., Larimore Falls, Me., has been incorporated for the manufacture of Dr. Wortzel's Great German Liver and Kidney Cure."

THE NATIONAL DRUGGIST.

Our live contemporary, the National Druggist, of St. Louis, has shown its faith in advertising in general, but in the superior advantages of the Pharmaceutical Era in particular, by taking a full page in this issue. For many years the National Druggist has occupied a commanding position among pharmaceutical publications. Its editor, Dr. F. L. James, is well known in Europe and America for his learning and ability, and the stamp of his individuality upon its editorial pages has given to this journal a dignity and position excelled by none of its contemporaries. A few months ago Dr. James and Mr. H. R. Strong bought the National Druggist. Mr. Strong assumed the management, and the great improvement in the magazine itself, its extended circulation, its increased advertising patronage, give emphatic evidence of his alertness, energy and business ability. To both subscribers and advertisers we cheerfully commend the National Druggist.

A. L. REYNOLDS, Ottumwa, Ia.—I received the small Dose Book and Key to the U. S. P., and value them very highly. I find them quite accurate and so much handier than having to turn to the Pharmacopoeia when in doubt as to dose and so on. Could hardly get along without the Era.

BOOK REVIEWS.

UNITED STATES DISPENSARY.*—The seventeenth edition of this work is a veritable encyclopedia of pharmaceutical information brought down to date. The main reason for this revision was to bring it into conformity with the Pharmacopœia of 1890, and this seems to have been very satisfactorily accomplished. The new Pharmacopœia embodies some radical changes from its immediate predecessor, necessitating the preparation of entirely new copy throughout a large portion of the dispensary. In addition, there has been within the several years elapsing since the sixteenth edition of the dispensary such vast progress in matters pharmaceutical, so many discoveries of new remedies, such revision of processes of manufacture, such an addition to our fund of information on matters pharmaceutical that the editors have had placed before them a task of enormous magnitude in the gathering, compilation and selection of the proper material for publication.

Nearly 1,500 pages constitute the main body of the work, wherein are considered official and standard remedies in alphabetical order. The text is particularly complete, entering freely into the descriptions, constituents, chemical and medical properties, tests and doses, and methods of preparation. In presenting this variety of information the typographical excellencies of the work are apparent, and references to sources of information are numerous and distinct. The editors have seen fit to supplement the metric terms for weights and measures used in the Pharmacopœia by their equivalents in the apothecary's system, explaining in the preface that it is their belief that this step will conduce greatly to the interests of the readers of the work, who will in this way be able to see at a glance the equivalent of an unfamiliar term in one which is known and, thus, in a short time the new names will take a place among those common to everyday life. They approve of the metric system by saying that the whole numbers and rounded forms thereof must finally secure their exclusive adoption. The new chemical nomenclature of the Pharmacopœia has been closely followed, and in the botanical nomenclature wherever the official names are not wholly approved, the editors indulge in comment to the end that through free discussion the best results may be obtained.

Part 2 presents first the entire text of the National Formulary. Section 2 of Part 2 is devoted to drugs and medicines not official in either the United States of British Pharmacopœias but which, on account of their use in domestic or professional medicine, their toxic properties, their history, or the probability that they may prove in the near future remedies of power or valuable products, should receive notice in a work of this nature. The text of this portion of the book is presented, double columns to the page, and in smaller type than in part 1. Here are included the large number of synthetic preparations introduced within a

*The Dispensary of the United States of America. By H. C. Wood, M. D., J. L. D., Joseph P. Remington, Ph. M., F. C. S., and Samuel F. Sadler, Ph. D., F. C. S., seventeenth edition. Revised and rewritten, 1,500 pages. Royal octavo. Cloth, extra. \$7; sheep, \$8; with patent index, 50 cents additional. Philadelphia, J. B. Lippincott & Co., 715 Market st., 1894.

few years past and the drugs and preparations whose present importance have not seemed to warrant their inclusion among the list of official articles. Part 3 opens with a very complete exposition of the tests and processes of the Pharmacopœia, with many tables of convenience for the conversion of weights and measures, specific gravity, thermometric equivalents, formulas, and molecular weights, etc. Concluding, the index of nearly one hundred pages, in three columns to the page, closely set, is a most comprehensive and valuable feature, which is supplemented in the first portion of the work by a thirty-page index of diseases with the remedial finding employment in their treatment.

Where there is so much to commend, it is difficult to find aught to criticize, and we congratulate the compilers of the work and its publishers upon the notable contribution to the working library of pharmacy which they offer to the profession.

***ESSAYS IN HISTORICAL CHEMISTRY.**—This work is precisely what its title would indicate. It is a collection of essays or lectures delivered by the author at various times to audiences of differing types during the past eighteen or twenty years. Professor Thorpe's reputation as a speaker rests upon his possession of wide and thorough knowledge and a happy gift of expression. These essays, therefore, are of entrancing interest, and the chemical world will receive the book with hearty appreciation. The author claims for it no pretensions to be a historical treatise on chemistry, even of the times over which its narrative extend, but merely a recountal of the achievements of such investigators as Black, Dalton, Liebig, Hoffman and others, which ought to find notice and preservation in permanent form. Many of the sketches have before been seen in print, and were as a rule illustrated with experiments appropriate to the occasions. The lectures are arranged in historical sequence, so that, in fact, they constitute a real history of the development of the science of chemistry. There are but thirteen essays, devoted in their order to Robert Boyle, Joseph Priestley, Carl Wilhelm Scheele, Henry Cavendish, Antoine-Laurent Lavoisier; Priestley, Cavendish, Lavoisier and La Revolution Chimique (presidential address to the Chemical Section of the British Association for the Advancement of Science); Michael Faraday, Thomas Graham, Friedrich Woehler, Jean Baptiste Andre Dumas, Hermann Kopp, Dmitri Ivanowitch Mendeleeff, and a concluding chapter on the rise and development of synthetical chemistry.

TRICRESOL.—A purified mixture of the three isomers of cresol; soluble to extent of 2.5 per cent in water, forming a neutral solution. A 1 per cent aqueous solution is equal in disinfecting power to a 3 per cent aqueous phenol solution.

ARSENIC IN DISTILLED WATER.—Our English exchanges relate a narrow escape from arsenical poisoning in a board school where distilled water for a chemistry class was supplied in a jar which had previously contained arsenic.

*Essays in Historical Chemistry. By T. E. Thorpe, Ph. D., F.R.S., etc., Professor in the Royal College of Science, South Kensington, London. Cloth, \$2.50. MacMillan & Co., London and New York.



EDWIN H. NELSON.

Nelson, Baker & Co., Detroit, Mich.

Among the manufacturing interests of Detroit is one in the line of the drug trade which in a comparatively brief period of time has attained a position before the trade which is most creditable to its originators. We refer to the house of Nelson, Baker & Co., manufacturing pharmacists. They require no special introduction, as their reputation is well established with the pharmaceutical fraternity.

Mr. Edwin H. Nelson is the president and general manager of the company. He is a young man of much business sagacity, and to him is largely due the success of the house, through his faculty of making friends and particularly through his judgment in the selection of coworkers and subordinates. Mr. Nelson is a man of strong personal characteristics and knows the drug business from A to Izzard. He was born at Brighton, Ont., in 1856, where he received a good general education, and, finally, in 1878, graduated from the Ontario College of Pharmacy. He came to Detroit in answer to solicitations from a man well known to him, through this connection became conversant with every detail and manipulation of the business. He has likewise had extended experience as a traveling salesman, in which his success was marked. He is the possessor of exceptional executive ability and the faculty of so handling his forces as to achieve the best results.

The treasurer of the company is Mr. William S. Baker, who, too, is peculiarly fitted for connection with a business of this character. For fourteen years he traveled as a salesman for manufacturing pharmacy, encircling the globe in his journeyings, and he naturally knows what lines of goods are sought by the trade.

Medicine is represented in the house in the person of the secretary, Dr. J. J. Mulhern, who was selected on account of his professional knowledge in more closely identifying the practice of medicine with the manufacture of remedies. Dr. Mulhern is widely known to the medical profession through long editorial service and through professional practice.

The vice-president is Mr. J. M. Crombie, who is well qualified for his duties and diligent in interest and activity. Of the other stockholders mention should be made of Mr. R. S. Gilkeson, who acts as special traveling representative, and Mr. F. E. Merrifield, who looks after the firm's business in New York and Brooklyn. Also Mr. George Peck, one of Detroit's heavy capitalists and president of the Michigan Savings Bank, and finally, Dr. T. A. McGraw, connection with whose name is sufficient endorsement.

The house of Nelson, Baker & Co. is now in its fifth year. It has succeeded in building up a large and profitable business, consequent upon the manufacture of a reliable line of manufacturing articles of pharmaceuticals, a specialty being private formulas for patrons. Sales are made in all quarters of the globe. The house is represented on the road by twenty-five traveling salesmen. This company is particularly well equipped with modern laboratory facilities, and an efficient corps of officers and workmen for producing the best of pharmaceutical products.

PATENTS,

TRADE-MARKS AND DESIGNS.

From U. S. Patent Office Gazette.

PATENTS.

- 517,533—Process of Dyeing by the Aid of Paramididophenylamin.—Arthur Weinburg, Frankfurt-on-the-Main, Germany, assignor to Leopold Cassella & Co., same place.
- 517,473—Blue Dye.—Oscar Navst Vogel and Friedrich Reingruber, Elberfeld, Germany, assignors to the Farbenfabriken, vormals F. Bayer & Co., same place.
- 517,626—Process of Purifying Tannic Acid.—Bernard Reinius, Paterson, New Jersey.
- 517,861—Composition for Exterminating Canada Thistles.—Richard B. Hull, Milton Junction, Wis.
- 518,018—Corkscrew.—Edward Becker, Solingen, Germany.
- 518,161—Device for Administering Medicine.—William B. Pollard, Hot Springs, Ark.

Expired April 3, 1894.

- 189,149—Processes of Treating Wool-Oil or Grease to Obtain Glue or Gelatine.—H. Thanlow, Christiania, Norway.

Expired April 16, 1894.

- 189,538—Production of Coloring Matter From Aniline.—Justus Wolff, Wike, near Bradford, and Ralph Betley, Wigan, England.

TRADE MARKS.

- 24,322—Preparation for the Cure of Gonorrhoea.—Enoch D. Phillips, Bessemer, Ala. The word "Clip."
- 24,323—Pills.—Henry Robinson, New York, N. Y. A portrait of the registrant and his fac simile signature, "H. Robinson," and the name "Dr. Cheesman."
- 24,345—Chewing Gum.—Faultless Chemical Company, Baltimore, Md. The word "Bromo" enclosed in a circle having a diametrical bar.
- 24,346—Toilet Powders.—John R. Planten, Brooklyn, N. Y. The Chinese words "Meen Fun."
- 24,347—Soap, Perfume and Toilet Powder.—Henry Tetlow, Philadelphia, Pa. The words "Holly Blossom."
- 24,348—Syringes.—Arthur E. Cruickshank, San Francisco, Cal., and London, England. The word "Vonda."
- 24,349—Cod Liver Oil.—M. Calm & Bro., New York, N. Y. The word "Dulcol."
- 24,350—Eye Water.—Father Lebreton Eye Water Company, Indianapolis, Ind. The representation of a combined cross, arrow and heart.
- 24,351—Corn Remedy.—William S. Haswell, Denver, Colo. The word "Toe-Gum."
- 24,352—Chemical and Pharmaceutical Preparations. Ichthyol Gesellschaft, Cordes, Hermann & Co., Hamburg, Germany. The word "Anytin."
- 24,353—Chemical and Pharmaceutical Preparations.—Ichthyol Gesellschaft, Cordes, Hermann & Co., Hamburg, Germany. The word "Anytol."
- 24,354—Remedy for Asthma.—Joseph H. Guild, Rupert, Vt. The words "Green Mountain" used in connection with the words "Asthma Cure."
- 24,355—Remedy for Throat and Chest Diseases.—Gertrude E. Miller, Pawtucket, R. I. The word "Arabilline."
- 24,356—Remedies for Diseases of the Throat and Lungs, Liver, Blood, Kidneys and Nerves.—Geo. W. Pangle,

- Council Bluffs, Iowa. A portrait of the registrant and the words "Good Samaritan."
- 24,357—Medical Compound for the Cure of Neuralgic and Rheumatic Complaints.—Dahl & Co., Barmen, Germany. The words and abbreviation, "Quinaloegen-Dr. Vis."
- 24,359—Chewing Gum.—Faultless Chemical Company, Baltimore, Md. The representation of the upper portion of a woman's figure with the right hand extended upward toward the face and the forefinger of said hand resting upon the mouth, and accompanied by the words "Faultless Gums."
- 24,391—Toilet Liquids, Pomades, Powders, Caked Powders and Soaps.—John D. Rishell, Philadelphia, Pa. The words "Pale Rose."
- 24,392—Soap in Cakes or Bars.—The Geyserrite Soap Company, Denver, Colo. The word or symbol, "Geyserrite."
- 24,395—Essential Oils and Chemicals.—The Charles H. Phillips Chemical Company, New York, N. Y. A symbol on shield.
- 24,396—Preparation for Removing Hair.—Jacob Mellinger, Baltimore, Md. The word "Fomoraze."
- 24,397—Elixir.—C. Bailly & Cie, Paris, France. The words "Quina Laroche."
- 24,398—Hydrophosphate of Calcium Compound.—Abbott Loring, Boston, Mass.; New York, N. Y., and Chicago, Ill. The word and letter "Fat-Ten-U."
- 24,399—Medicinal Preparations in the Nature of Tonic Phosphates.—Giovanni Bruno, New York, N. Y. The word "Phosphoria."
- 24,400—Remedies for Constipation, Biliousness, Rheumatism and Neuralgia.—Prentiss Chemical and Manufacturing Company, San Francisco, Cal. The representation of a crown and an arm issuing from the crown and bearing in the hand a dagger, together with the name "Prentiss."
- 24,415—Mineral Waters.—Moritz Hirscher, Buda-Pesth, Austria, Hungary. The words "Franz Josef."
- 24,416—Medicinal Tonic Preparation.—Billings, Clapp & Co., Boston, Mass. The words "Bark and Iron" arbitrarily arranged on a descriptive label so that the words "Bark and Iron" extend crosswise of the printed words of the label.
- 24,417—Remedy for Coughs, Colds, Throat and Lung Affections.—Arthur F. Walker, St. Johnsbury, Vt. The word "Pulmorcure."
- 24,418—Chemical and Pharmaceutical Preparations.—Actien Gesellschaft Fur Anilin Fabrikation, Berlin, Germany. The word "Resorbin."
- 24,419—Lime for Disinfecting and White-washing Purposes.—William H. Phillips, Newark, N. J. The representation of a negro in standing posture, attired in trousers, short and hat.
- 24,421—Toilet Soap Paste.—Buzby & Bickley Co., Limited, Philadelphia, Pa. The word "Perslan."
- 24,422—Oil Soap for Manufacturing and Domestic Purposes.—Buzby & Bickley Company, Limited, Philadelphia, Pa. The word "Ruby."
- 24,445—Perfume for Toilet Uses in Liquids, Powders, Pastes and Soaps.—George E. Lorenz, Toledo, Ohio. The words "Wild Grape Blossom."
- 24,446—Shaving Soap.—The J. E. Williams Company, Glastonbury, Conn. The words "Swiss Violet."

- 24,464—The Gold Cure for Opium, Whiskey and Tobacco Habits and Nervous Diseases.—The Leslie E. Keeley Company, Dwight and Carbondale, Ill. The representation of a globe crossed by a belt, and the words "We Belt the World."
- 24,465—Remedy for Certain Named Diseases.—John W. Lundgren, Worcester, Mass. The word "Linnea."
- 24,466—Blood Purifier and Kidney and Liver Regulator.—Isalah E. Zimmerman, Paterson, N. J. The representation of a human eye, the capital letter "Z," the character "&" and the abbreviation "Co."
- 24,467—Remedy for Certain Named Diseases.—John Morrison McLeod, Goderich, Canada. A monogram of the letters "J. M. McL."
- 24,468—Medicine for the Cure of Neuralgia, Grip and Fever.—The Pheno-Bromate Chemical Co., Lebanon Springs, N. Y. The word "Pheno-Bromate."
- 24,469—Remedies for Catarrh, La Grippe and Diseases of the Throat and Lungs.—Leonia Mabee, Paris, Tex., and St. Louis, Mo. The word "Targarett."
- 24,470—Cough Drops.—Joshua F. Beane, Augusta, Me. The words "Aunt Rebecca's."
- 24,471—Liniments, Worm Powders and Elixirs for Diarrhoea.—Frank E. Carter and Cynthia S. Jones, Boston, Mass. The word "Relieva."
- 24,473—Castor Oil.—M. Calm & Bro., New York, N. Y. The word "Laxol."
- 24,474—Liniments.—Elijah F. Watkins, Palatin, W. Va. The representation of an outline of a human figure wearing a helmet and standing over a wingless dragon having its tail partly coiled about his right leg.
- 24,475—Insecticides.—Orlando H. Jadwin, New York, N. Y. The words "Fatal-Food."
- 24,476—Remedy for Chicken Cholera.—Edward M. Hawkins, Cuba, Mo. The letters "S" and "C" in the form of a monogram, followed by the letters "U. R. E."
- 24,496—Medicine for Diseases of the Bowels and Stomach.—Howard Woodcock, Brookfield, Wis. The words "Wonder Regulator."
- 24,497—Certain Named Medical Compounds.—Herbert L. Partridge, Lacrosse, Wis. The word "Safety," and the representation of a bicycle.
- 24,498—Medicinal Compound for the Prevention and Cure of Diptheria. A. W. De Jean, Minneapolis, Minn. The word "Ba-Lobell."
- 24,499—Medicated Distilled Water.—Kalish Pharmacy, New York. The words "Restorative Water" and the representation of a column set in the earth with water gushing therefrom.
- 24,506—Natural Mineral Water.—J. P. Forbes & Co., San Francisco and Chicago. The word "Castallan."

TANNATE OF STROPHANTHIN, employed as is the pure glucoside and administered in pill form, occurs as a whitish, amorphous powder, soluble in alcohol, containing 58.14 per cent of strophanthin.

H. E. MITTOCKS, Chenoa, Ill.—Today's mail brought me the second edition of the Era Dose Book and the Era Key to the U. S. P. Accept my thanks. I do not hesitate in saying that THE PHARMACEUTICAL ERA is the best drug journal published, and I could not get along without it.

THE MARKETS.

The fluctuations noted in this market report are those affecting goods in original packages and jobbing lots. A complete price list, showing quotations as made by jobbers to retailers, will be found upon another page under the head of "Prices Current."

New York, April 18, 1894.

The unfolding of fresh developments during the past fortnight has been rather slow and requires scarcely more than passing notice, the period having been comparatively uneventful, with little or nothing to disturb the general monotony which has prevailed for several weeks. Of course, there have been a number of fluctuations in values, but the final results do not indicate any radical changes, and the tone of the general market reflects a continued determination on the part of the majority of holders to patiently await the anticipated turn of affairs. Importers and dealers in round lots report continued inactivity, while jobbers are only moderately busy, but the limited orders received are sufficient, in the aggregate, to prevent any material accumulation of supplies, and, although the outlook is far from encouraging, there is yet ground for believing that the general volume of business will reach enlarged proportions in the near future. It is generally conceded that stocks of distributors are light in all localities, and the necessary replenishing would surely follow an improved demand from the consuming trade; but, with the latter perusing the hand to mouth policy, it is doubtful whether the former would anticipate future wants to any important extent, and transactions of magnitude are not likely to be numerous. The cautious methods governing operations since the recent period of depression have been productive of good results, inasmuch as collections are made with less difficulty than formerly, credits are examined more carefully, and financial affairs are consequently in a more satisfactory condition. Speculation no longer seems to cut any important figure in this department of trade, but its absence is not considered an unfavorable feature; on the contrary, many are inclined to the opinion that more confidence is felt when supply and demand, together with other natural causes, influence the various changes.

OPIMUM—Has continued to decline in price and the market is weak in tone, with the demand slow. The available stock has been increased by further large arrivals, and carefully prepared statistics show the receipts thus far this year to be fully 150 cases in excess of the entire importations of 1893. There is nothing in the general outlook encouraging to holders, and unless the proposed duty becomes an established fact, it is claimed that a further material shrinkage in values is probable. On the other hand, we hear that the present condition is merely the result of a well organized "bear movement" for the purpose of securing control of the bulk of the stock both here and abroad, and when that purpose is accomplished, a sharp reaction will follow. This theory is partly borne out by the fact that one or two of the large holders have declined to name quotations.

POWDERED OPIUM—Is also dull and weak, but the decline is not in proportion to the lower prices for the gum.

MORPHINE—The depressed condition of opium has influenced an easier tendency, and manufacturers have reduced prices 10 cents per oz. on all sized packages.

QUININE—Has recovered somewhat from the depression noted in the last report. An improved demand has absorbed a liberal portion of the surplus stock recently offering and values are firmer, but there are still sellers at $\frac{1}{2}$ to 2 cents less than the price named by manufacturers' agents, and the available supply is amply abundant to meet existing requirements of consumers. Rumors are again current that manufacturers are contemplating a further advance, and that such action is warranted by the steady improvement in bark, but counter-rumors state that no change will be made before September or October.

COD LIVER OIL—No important change has occurred in the market for this article either here or abroad, and with the exception of a few fair-sized parcels transferred from one dealer to another, the movement has been comparatively moderate. It is usually the case when sharp advances occur and extreme prices are reached that buyers operate cautiously, so it is not surprising that a quieter feeling should prevail in this market. The final result of all the fisheries for the current season is not yet known, but there are indications of a shortage, and when the figures are made public it is not unlikely that increased firmness will develop, particularly as the stock of several dealers is much lighter than usual.

ALCOHOL—The reduction in prices of grain previously noted has given the market a more settled appearance and consumers have operated with a greater degree of confidence. It is stated that the distributing company has made a new arrangement with the combination of producers whereby they will be better able to meet competition from outsiders. Wood is unchanged and a continued fair jobbing business is in progress.

QUICKSILVER—The larger dealers have again advanced prices, but small outside holders are shading the quotations from first hands.

BALSAM COPAIBA—Is moving freely into consuming channels, with Central American showing the larger volume of business, but the range of quotations is wide, owing to the variety of qualities offering. Para is in reduced supply in consequence of liberal purchases for export, but while values are firmer, former prices are yet acceptable.

BALSAM FIR—Is ruling easy under pressure to sell and lack of demand. The coming crop is expected to be unusually large, and bids are already being solicited by sellers in primary markets.

BALSAM PERU—Is held firmly at advanced prices, especially the better grades, the stock of which is concentrated in few hands, and only small parcels are offering.

BALSAM TOLU—Is in good demand for consumption, and values have a steady support.

ARNICA FLOWERS—Are meeting with a steady, fair consuming inquiry, but values are without quotable change.

AMERICAN SAFFRON—Continues active in a jobbing way, with the tone of the market strong, and still higher figures are probable in the near future.

ERGOT—Remains dull and neglected,

with values nominal and tending in buyers' favor.

SHORT BUCHU LEAVES—Show a decline of about 1 cent per lb on all varieties, resulting in a more active demand from consumers.

DAMIANA LEAVES—An increased demand has reduced the spot stock materially, and the recent decline in prices has been fully recovered, with indications favoring a further advance.

OIL LEMON—Has again declined and all brands are 5 to 10 cents per lb lower.

OIL PEPPERMINT—H. G. H. is higher under an improved demand, and the principal holder is quoting extreme prices. Tin oil is quiet and unchanged.

OIL LEMONGRASS—Is easier, with prices showing a decline of about 5 cents per lb.

JALAP—Continues weak and unsettled, with the stock in first hands unusually heavy. Dealers and importers are apart in their views and are competing with each other for the jobbing trade, which results in a general demoralization of the market.

CASCARA SAGRADA—Is strong and a shade higher, with an active inquiry for the better grades of oil.

CITRIC ACID—Has been reduced 1 cent per lb by the manufacturers, and prices from dealers are correspondingly lower.

CAMPFOPH—Easier markets abroad for crude and continued competition from the Japanese article have influenced American manufacturers to modify their views and a decline of 2 cents per lb is announced.

SPERMACEIN—Has met with an increased demand mainly for export, and with available stocks reduced, holders of block have advanced values $\frac{1}{4}$ to 1 cent per lb. Cakes are quiet and nominally steady.

CHICLE—Has ruled quiet and further business has been checked by a hardening of holders' views, the change in values showing an advance of about 1 cent per lb. The stock in first hands is large, and some claim that there is nothing to warrant the improvement.

OIL OF CUBEBS—Has declined about 10 cents per lb in sympathy with the recent reduction in prices of berries.

OIL OF SASSAFRAS—Is about 1 cent lower for natural and 2 for artificial.

OIL SPEARMINT—The better grades are available at about 25 cents per lb less than previous quotations.

OIL WINTERGREEN—Is 10 cents lower, without stimulating the demand to any important extent.

TONKA BEANS—The Angostura variety is held with considerable firmness, but a revision of prices for Para and Surinam show a reduction of 5 to 10 cents per lb, according to quality and quantity.

ARSENIC—All kinds are ruling firmer, with the stock of Saxony Red reduced to a minimum.

BLUE VITRIOL—Is ruling strong and a higher range of prices is generally expected by dealers.

CHLORATE OF POTASH—Is easier and unsettled, with stocks large and in excess of consumers' requirements.

CREAM TARTAR—Is firmer in tone, but manufacturers are yet quoting the old range of values.

SERPENTARIA ROOT—Is in better request and values are slightly higher, mainly owing to the fact that stocks at primary sources of supply are practically exhausted.



GEORGE F. H. MARKOE.

GEORGE FRANCIS HOLMES MARKOE is widely known personally, and through his professional and scientific labors his name has become familiar to a far greater circle. His name and face are familiar to pharmacists through his regular attendance upon pharmaceutical meetings, and particularly because of his long term of service in the Massachusetts College of Pharmacy.

Prof. Markoe is a true American, if the term be applied but to citizens of the United States, though his birthplace was Valparaiso, Chili, where he was born June 10, 1840. His ancestors were of Huguenot parentage, leaving home for conscience sake, and locating in the West Indies. His father died when the boy was but an infant, but his mother marrying again his early recollections are of his stepfather, a sea captain, who frequently took his family, including the boy, of course, in his voyages along the coast of South America. In 1850 young Markoe went to live with his grandparents at Salem, Mass., and here he gained an excellent education in the Phillips Grammar

School. He then entered a drug store, and, supplementing practice by ardent study, he gained a very thorough insight into pharmacy and its allied branches. He became an enthusiastic botanist, spending the early morning hours before the store opened in this study, which has been his pleasure through life. In 1861 he entered the employ of a well-known Boston chemist, gaining with him most valuable knowledge of manufacturing and analytical chemical work. In Boston he passed ten years in a drug store, three years as a partner, and in 1873 assumed charge of a store of his own in the suburb of Roxbury, which he still conducts.

Prof. Markoe has been connected with the Massachusetts College of Pharmacy for thirty years. For eighteen years he was its corresponding secretary, and since 1867 has occupied the chair of pharmacy, except for a period of a few years, when he served as Professor of Chemistry. Since 1892 he has been back in his old position as Professor of Theory and Practice of Pharmacy. In other branches of science he has always kept very close affiliations,

and has been elected honorary member in various scientific bodies. For six years he served Harvard Medical School as instructor in materia medica, and he has won appreciation as a botanist of high repute. He joined the A. P. A. in 1863, and in 1875 was made its president.

Prof. Markoe is one who enjoys to the fullest extent the pleasures of knowledge, never so happy as when gaining or imparting information. He is an entertaining and instructive speaker, either in lecture or afield on a botanizing or geologizing tramp. He occupies a beautiful home, where he can experiment to his heart's content. He has been twice married, and his lovely home is the centre of a choice social circle.

There are many, all who know him, of the graduates of the College of Pharmacy who hold Prof. Markoe in warm remembrance for his uniform kindness and courtesy, for his ready sympathy and assistance; this, too, added to a high respect for his professional attainments and appreciation of his work as teacher.

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EDITORIAL.

BOTANY FOR PHARMACISTS.

A writer in this issue makes a strong plea for the study of botany by pharmacists, or, rather, he demonstrates very plainly that botany is indispensable in the equipment of the pharmacist. It is strange that there is necessity for such an argument or demonstration, but too many pharmacists are disposed to underrate the value of this branch of science and belittle its importance as bearing directly upon and closely related to pharmacy. Of pharmacy it is a vital part. Vegetable drugs cannot be known if one is ignorant of their botany. A knowledge of botany is necessary to an understanding of the printed descriptions of drugs. It often serves as the ultimate test of distinction between the true and the false. It serves as a standard of valuation in many instances. Familiarity with plant families and species is one of the best tools of the trade to the druggist. The study of botany, aside from its immediate value and application in professional labors, is a most fascinating pursuit and an excellent training for the mind and powers of observation.

THEODORE METCALF.

A long-time conspicuous figure in pharmaceutical circles has removed from life's activities. A pioneer in the drug business in America, Theodore Metcalf for nearly six decades went in and out among his business and professional brethren, building and sustaining a reputation for sterling worth and integrity, not confined to the great city he made his home, but which found recognition and whose influence was experienced wherever the genius of American pharmacy made itself felt. Mr. Metcalf was one of Nature's noblemen of signal qualities. With a record of good deeds, of charitable hospitality, liberality and business successes, his life affords an example worthy of imitation by all. A few words of eulogy and a brief recountal of his business career are presented on another page. Here we would express the drug trade's great sense of loss in the removal of one who has honored pharmacy and endeared himself to the entire business and professional fraternity of pharmacy by his consistent and noble life. His is the reward after a long life of activity, of "Well done, thou good and faithful servant."

VALUE OF ORGANIZATION.

What a united body of determined men can do is well illustrated in the history and successful achievements of the Louisville Botanical Club. What that society has accomplished may be accomplished by a united drug trade in any city. Association acquaints druggists with each other, and enables each to pave the way toward making a friend of his competitor in business. It is all very well to be independent, if one can afford to be, and talk about going it alone, but wait till some cloud appears on the horizon of trade, till the storm bursts, what then? The situation can be best understood only when felt. In an unorganized condition the druggist's action is individual, and the ends are individual. As an individual, what can one do toward checking trade abuses, or toward securing self-protection from the various combinations which affect the drug trade everywhere? Another point: Organization enables one to gain a broader knowledge of his business from timely discussions of his fellows, and considered from a social standpoint it gives him at least a few of the ordinary enjoyments of life. Organized effort can move on a question of duty or policy, with a unity of strength and definiteness of purpose which cannot be controverted. Are you a member of such an organization? If not, why not? It pays.

KEEP A SCRAP BOOK.

There is a vast amount of information afloat, ephemeral in its character, which if collected and arranged so as to be available would prove of great value to its possessor. Especially is this true of the material which comes in unstinted quantity to the hand of the pharmacist. Formulas, newspaper clippings, pamphlets, scraps of miscellaneous information, which, though of little value at the moment, may, if preserved, yield golden returns. It matters very little just what may be one's method of filing such information so long as there is system in it, and by system is understood such an arrangement in the compilation of material deemed worthy of preservation as will save time in reference and enable the compiler to locate the information at once. No scrap of information, formula, etc., is of value unless it can be found when wanted, and a well indexed "scrap book" or filing cabinet is worthy a place in the library of every professional and business man.

And this brings up another phase of the subject, that of filing current pharmaceutical journals. No scientific journal worthy the name is specially valuable for the present information it affords, but preserve the successive numbers of that journal, carefully keeping each volume (with its index) by itself and it becomes a source of profit, as well as pleasure, to its possessor. A carefully kept well indexed pharmaceutical journal puts into the hand of its owner scientific papers, formulas, hints on advertising, buying and selling and information upon a thousand and one subjects with which the pharmacist must some time or other become acquainted. Such a possession is, however, of no avail unless it be used by its possessor. It is valuable only as it is made valuable, and we would urge upon

every clerk beginning the drug business and every pharmacist who has grown gray in its pursuit, if he has not already done so, to make a beginning now. Collect all bits of information having a distinctive bearing upon your business and work, take pains to carefully file and index them, supplement this by filing and indexing your journals, and in a few years a working library of indispensable value and utility will be yours. On another page of this issue is a practical paper upon this subject which is worthy the consideration of every reader.

"MOVING-DAY" NUMBER.

We may be pardoned for a feeling of gratification at the reception accorded the May 1 Era, and may not be charged with egotism because we publish elsewhere in this issue a few of the many kind words and compliments of our friends. A friend, we all know, is the frankest and severest of critics, and that so much of flattering nature is spoken by our friends is surely proof that we have reason to feel flattered. We are not entirely satisfied with the "Moving-Day" number; we see places where it could have been improved, but we are assured that its deficiencies will be overlooked in virtue of its excellencies. That it was prepared under exceptional circumstances, in the general confusion of moving, with some members of the working staff at one end of the line, the rest at the other, lacking unity of action so necessary to quick and satisfactory results, rendered it necessary to surmount unusual obstacles, and he who knows what are the ordinary annoyances and difficulties of journalistic work will appreciate our feeling of satisfaction at having achieved, under adverse circumstances, a result which elicits so high a degree of commendation as has been accorded this issue.

We thank our friends for their praise, finding in it not alone a recognition of past or present deeds, but an incentive to farther a most earnest effort to merit their continued approval.

Further, we would say a word of recognition and thanks for the cordial, whole-souled welcome which has greeted all connected with this journal upon removal to New York. This kindly welcome, and the encouragement of speech and deed, are an earnest of what will, we are sure, be extended the Era in its new home and widen its field of labor.

NOSTRUMS WHICH CAUSE AND FOSTER DRUG HABITS.

Frequently there appear in print brief accounts of the disastrous results following the incautious or ignorant use of patent medicines containing toxic ingredients. But these notices never attract the attention they deserve from their significance. In the newspaper they form but a very small fragment of the day's offering of news, and are often so written that they are practically valueless to the general reader because of the reporter's inability to write intelligently on matters where some little knowledge of medicine and chemistry is necessary. In pharmaceutical and medical journals such reports find more recognition, but nothing comes of it. These journals do not go to the

class of readers who should be warned against the dangerous nature of some of the nostrums on the market. The very people who should know there is poison in the preparation do not know it, and the result of this ignorance is brought home to but few immediately affected by the illness or death of the victim. There should be some way of regulating the sale of articles which, ignorantly employed, may cause such harmful results. Movements for legislation in this direction have always been defeated by the manufacturers, who, in their greed for gain, are willing to hazard a life. These remarks do not apply to all, even to but a small minority, but this minority is a dangerous factor. As it now is, the maker of a cocaine catarrh cure, or morphine cough syrup, is at fullest liberty to kill or cure. In our State pharmacy laws patent medicines are specially exempted from all restrictions. They may consist of what you will. They may be sold or peddled as you wish. If a patent (proprietary) medicine poses as a medicine, why should it not be treated as a medicine, its administration restricted to properly qualified persons.

But it is not the report of a death caused by a secret nostrum that is the text for these remarks. We want to speak a word of warning concerning that class of concoctions which produces results worse than death the preparations which cause and support mind and body destroying drug habits. Here are tonics (non-alcoholic), liquor cures (non-alcoholic) containing as much alcohol as a strong wine or a whisky; the catarrh cure, containing a large percentage of cocaine; the opium habit cure, which contains a potent quantity of morphine; the cough syrups, loaded with opium, and many others of the same general character. The alcohol cure and the opium cure but seat the habits more strongly upon their victims. The catarrh cure and the cough medicine, or soothing syrup, cause the habit itself. The cocaine and morphine habits are debasing and destroying, and the manufacturer who for paltry gain would subject the purchaser to the risk of physical, mental and moral debasement should be summarily dealt with by law. If no law exists covering this crime, for vilest crime it is, he should be driven from the community.

Pharmacists cannot analyze and do not know the composition of every nostrum on their shelves, but when a medicine is exposed as containing a poison in disguise, dangerous in general and indiscriminate use, it is his duty to boycott it and expose its dangerous character. If our State pharmaceutical associations want to effect some real good for the profession and the people, let them stop wrangling over the prices of patent medicines and do something toward prohibiting the manufacture of the vicious ones. Make the pharmacy, poison and liquor laws apply to them, and then see that the laws are enforced.

SUBSTITUTION.

Recent developments concerning certain practices in the retail drug trade afford ground for expressions of regret that they should obtain in any degree, and particu-

larly to the extent it seems they do. We refer especially to substitution, in its most offensive and reprehensible form, and it is surprising that so many supposedly reputable druggists are found practicing it. Not long ago it was shown that St. Louis and Chicago druggists, when the proprietary article Listerine was called for, in more than half the cases would dispense some substitute, without any attempt to inform the customer that the imitation was given. For example's sake, the proprietors of the preparation made it very warm for some of the substitutes, and others promised over their signatures to sell no more. The condition of affairs prevailing in the cities named was found existent in many others, the extent of substitution being proven far greater than had been thought possible. Manufacturers of other proprietaries have been pursuing like investigations, with the same results, and we understand that offenders are to be brought to a full realization of their responsibility. There is a large class of proprietary medicines which are particularly subject to the attack of the substitutor. Not the ordinary, popular patent medicine, sold only in package form, but those which are exploited principally to the physician, and directed in prescriptions, being used by the dispenser in portions from the original container. Here is offered abundant chance for substituting an imitation for the genuine, Listerine, Antikamnia and many others are examples of this class. The substitutes vary wonderfully in physical and chemical characteristics, in some instances being such palpable frauds that sight alone will detect the imposture.

A few words to druggists avert substitution. There are two forms of substitution, one thoroughly reputable, honest and professional, the other a fraud and dishonest. The honorable variety is where the druggist, with no deception, no false representations, with the consent of physician or customer, brings into play his own professional knowledge and skill in opposition to the article called for. But, observe, there must be no deceit in this matter. It is perfectly legitimate to try to sell your own preparation, provided it be understood by the customer that it is yours. But the substitution complained of is not of this kind. It is dishonest and disreputable in every respect. The customer or patient has the right to get what he believes he is getting, and the druggist defrauds him if he doesn't supply it when he pretends to. An excuse frequently advanced for substitution is that physicians prescribe every new preparation called to their notice. They specify a certain make, when the druggist may have in stock his own or some other equally efficacious. A single prescription may be all that is received for that particular make, and the remainder is a dead loss. Much sympathy is felt for the druggist in this unpleasant predicament, but strict honesty should lead him to procure the goods ordered or refuse to put up the prescription. The only incentive to substitution is the desire for greater profit, but a business built up from dishonest practices is not a stable one. The arguments in favor of substitution are fallacious, based upon unsound premises. To those

who at times may feel tempted to replace the directed article by another, we would say, don't. Loss of immediate gain is amply compensated by ultimate success and a character for strictest probity in professional dealings.

Substitution, besides being dishonest, is a dangerous practice. The exact composition of a proprietary article is seldom known, and to replace it with a guess-mixture is a risky business. The substitution of cheap and inferior drugs for the pure and genuine is equally reprehensible.

We would not sermonize, and our views on this matter are, we believe, in sympathy with those of all conscientious pharmacists, but we would speak a word of warning to those whom nothing but a good fright will turn to better ways. Several producing chemists and pharmacists have become tired of the practices of the substitutors, and propose to bring them up with a round turn, and have inaugurated a searching inquiry in all the trade centres of the country. While we know of no concerted action, the investigation will be most thorough. If friendly, cautious and considerate treatment do not avail, counsel has been retained to prosecute vigorously those who refuse more amiable methods. The manufacturers are right in this determination, and have the approval of the better class of pharmacists. Whatever be the nature of the proprietary article (good or bad) the druggist who secretly substitutes is guilty of theft. The infringement of trademark rights must not be overlooked. This is a serious legal offense, the penalty for which is of a heavily unpleasant character. We encourage the supplying of popular demand by medicines of your own compounding, every manner of inducing the physicians to employ your preparations rather than the proprietaries and semi-proprietaries, so long as this is all done openly and above board, but have no sympathy for the dishonest substitutor, and would see him get his deserts.

VALUE OF VACCINATION.

The Royal Commission on Vaccination, in a recent (but long delayed) report to the British Parliament, details the results of an investigation which is of particularly pertinent interest at this time, when medical scientists are making the most extended and thorough study of the subject of vaccination which has ever been accorded it. The Royal Commission were directed to inquire and report as to

(1) The effect of vaccination in reducing the prevalence of and mortality from small-pox.

(2) What means, other than vaccination, can be used for diminishing the prevalence of small-pox; and how far such means could be relied on in place of vaccination.

(3) The objections made to vaccination on the ground of injurious effects alleged to result therefrom, and the nature and extent of any injurious effects which do, in fact, so result.

(4) Whether any, and, if so, what, means should be adopted for preventing or lessening the ill effects, if any, resulting from vaccination; and whether, and, if so, by what means, vaccination by ani-

mal vaccine should be further facilitated as a part of public vaccination.

(5) Whether any alterations should be made in the arrangements and proceedings for securing the performance of vaccination, and in particular with respect to prosecutions for non-compliance with the law.

The Commission, in accordance with time-honored English custom, traces the history of small-pox and allied diseases, as well as processes of inoculation, back to times almost prehistoric, but so far as concerns practical results from the investigation into matters as they now stand there is little but contradictory and conflicting evidence presented. Among the testimony is that of Dr. Crookshank, Professor of Comparative Pathology and Bacteriology at King's College, who believes vaccination affords but transient protection from small-pox. Though not the absolute rule, he thinks an attack of small-pox is a preventive of another, instances to the contrary being but variations of the rule. Regarding vaccination, he would leave that question to the discretion of the individual, with liberty to take the advice of his medical adviser. He says: "Believing, as I do, that the stocks of vaccine lymph obtained from cow-pox, horse-pox, sheep-pox, cattle plague, and even attenuated variolæ-vaccine, produce, if any, a very transient effect, I should leave it to the individual to weigh on the one hand the advantages (if they exist) of 'vaccination,' and on the other, the chances of infection with small-pox and the disadvantages and risks of 'vaccination.' A system of universal protective inoculation of healthy individuals as a means of warding off communicable diseases of man and animals has, in my opinion, had its day, but inoculation of individuals who are unfortunately the subjects of such diseases as rabies, tuberculosis, tetanus, is a new field of inquiry full of promise. I maintain that the State should protect the people from small-pox by a stamping out system and by the encouragement of sanitary reforms, and not by any system of protective inoculation."

Dr. George Cordwint, Deputy Coroner for West Somerset, is a witness whose experience of vaccination and small-pox extends over a period of fifty years. He does not believe in the protective power afforded by vaccination; but, in view of the fact that the system does not accept two diseases at the same time, he is of opinion that while the disturbance set up by vaccination lasts the system is proof against an attack of small-pox. This witness states that he has probably seen at least three hundred cases of small-pox occurring after vaccination, but has never met with one case of small-pox revisiting a person who has once suffered from the disease. Regarding injurious effects from vaccination his impression is that eczema in children becomes much more inveterate and that constitutional disturbances are very frequently occasioned.

The testimony of many other witnesses was virtually of the same nature. While declining to state that vaccination is or is not certainly protective, all agreed that at the present day the chance of any per-

son being infected with small-pox is infinitesimally small when notification and isolation are conscientiously carried out. Regarding compulsory vaccination it was pointed out that at best any regulations could be but imperfectly carried out. There are many unalterably opposed to the principle of vaccination, and to make martyrs of them through prosecutions would seem injudicious, and the opinion was expressed that there would be more vaccination if compulsion were abolished. One gentleman, speaking of prosecutions, said:

"I have always thought that when we try to enforce one of the ever-changing opinions of medical men we touch upon the liberty of the subject and the rights of human nature. I find that a number of parents are fined because they are convinced that vaccination is useless and injurious. I ask what is the character of those parents? Are they idle? Are they dissolute? Are they drunken? Are they careless of the welfare of their children? The answer is emphatically No. They are thoughtful, they are industrious; they are sober; they are men who look to the reason of things and who decline to be driven into any course of conduct which they do not rationally approve."

American physicians are, we believe, more generally believers in vaccination against small-pox, and our boards of health or other authorized officials look closely after the vaccination of the people. The Royal Commission's inquiries have resulted in little we did not know before, but the report is well worth consideration by those who are apt to hastily conclude for or against a proposition or measure. The conclusion that compulsory vaccination is most injudicious seems a good one, but the testimony on the several other lines of investigations leaves them still undecided. It will be impossible to make all the people, even a considerable proportion, believe that vaccination is not a preventive of small-pox.

[Written for *The Era*.]

LABORATORY NOTES.

By F. J. Wulling.

ANTISEPTIC SOLUTION.—The following formula used in the St. Louis Hospital in Paris (and which has been published in several of the foreign journals in '93) yields a solution which meets all the demands upon an antiseptic solution: Borax 11, boric acid 5, salicylic acid 5, and saturated solution of thymol (aqueous) 1.00 parts. Certain physicians here like the solution so well that they have a gallon of it made at a time for office use, and besides prescribe it quite frequently.

ANTISEPTIC POWDER.—An antiseptic powder used in the same hospital is composed of: Iodoform 100, benzoin 100, powdered cinchona 100, magnesium carbonate 100, and oil eucalyptus 12 parts. A few physicians prefer this to iodol or aristol.

MAGENDIE'S SOLUTION.—A Magendie's solution, made by dissolving the morphine sulphate in boiling distilled water containing one minim of carbolic acid in an ounce, filtering while hot, and again raising to the boiling point, will be found to keep very well. Physicians indorse the use of the carbolic acid.

PODOPHYLLUM RESIN.—In applying the U. S. P. tests to a sample of resin of podophyllum, the resin was found to be soluble in alcohol to the extent of only about 50 per cent. Of ten samples tested subsequently, 7 were found to meet the requirements of the U. S. P., the other 3 having been far from pure. They contained from 30 to 60 per cent of matter insoluble in alcohol, or in the fixed alkali hydroxides. The insoluble portion resembled very closely when dried exhausted podophyllum root. Gravil and Sage reported similar observations in 1893. (Pharm. Laborat. Col. Pharmacy U. Minn.)

SOFTENING COATED PILLS WHICH HAVE BECOME HARD.—Sugar and gelatin coated pills when kept for some time often become so hard that they will not dissolve in the stomach. They may be prevented from becoming hard or their freshness easily restored by attaching to the lower end of the cork of the bottle in which they are kept a small piece of sponge by means of a double-headed tack, and slightly moistening the piece of sponge. The sponge must not be too wet, otherwise the pills will become soft and adhere. There are very few pills to which the moisture would be injurious. In the writer's laboratory all lines of pills were kept fresh in this manner by carefully moistening the sponges every two or three weeks. The physicians in the neighborhood who were advised of this appreciated it, as was evidenced by their increased patronage.

EXPLOSIVE MIXTURE.—In the compounding of the following prescription:

Potassium chlorate 1 dram.
Tannic acid ½ dram.
Honey of rose 2 fl. ounces.
Fluid extract conium 15 drops.
Water, enough to make, 4 fl. ounces.
Mix and use as a gargle.

the compounder ignorantly or carelessly added the potassium chlorate, which was in form of rather large crystals, to the tannin in a mortar, and rubbed the two together for reader solution. Of course the two chemicals exploded, and with some violence, too, but fortunately the explosion did no harm. There is hardly any excuse for pharmacists who claim to be competent, to triturate potassium chlorate with other bodies, especially if the chlorate is to be dissolved. In some pharmacies the chlorate is kept in form of a saturated solution for just the purposes indicated by this gargle. Tannic acid and alum are prescribed more frequently, but some physicians prefer the chlorate with tannin, and the prescription in question is not an uncommon one. In this case the prescriber, too, had taken the trouble which not many physicians take, to add M. S. A., probably knowing that two of its ingredients would explode under favorable conditions.

It is a peculiar fact that a very small proportion of dispensers employ heat when admissible in facilitating solution. A salt, especially one which is not very rapidly soluble, as f. i. potassium chlorate, is always more readily obtained in solution by gently heating with the solvent in a Florence flask over a Bunsen burner, than by triturating in a mortar and adding the cold solvent.

May 15, 1894]

[Written for *The ERA*.]

HOW SHALL YOUNG MEN BE EDUCATED IN APPLIED CHEMISTRY?

By Peter T. Austen, Ph. D., F. C. S., Professor of Chemistry in the Brooklyn Polytechnic Institute.

There have of late appeared so many articles on the training of chemists* that it is with some hesitation I respond to the request of the editor of *The Era* for my views on this subject, because I feel that I may not have much to add to what has already been so well said by others. But as one who for a number of years has been preparing young men for active work in chemistry, and as one who has also been closely connected in various capacities with numerous manufacturing establishments, I may be able to emphasize some of the points already made and perhaps also suggest others which my experience may lead me to consider worthy of attention.

Chemistry is probably the most fundamental of all sciences, since it concerns itself directly with the study of the composition and changes in identity of matter. Hence it is not possible to predict what path the chemical student will pursue when he becomes independent and able to choose for himself, or what opportunities he may grasp if they are presented to him. Sooner or later every manufacturer calls for chemical knowledge, because in every manufacture the steps are more or less chemical changes, and the composition of the articles handled must be known. In the past this was not appreciated, but at present it is rapidly becoming recognized, and, indeed, in branches of manufacturing which are far from appearing chemical to the ordinary observer. A moment's reflection will, however, enable the educated reader to understand that manufacturing is but a series of material changes. Many of these may be mere changes of state, physical changes, effected by mechanical appliances, but even in these the composition of the substances may play an important part, and, at best, no clean-cut division between physical and chemical phenomena is possible.

The day of the ignorant man, of the rule-of-thumb man, of the so-called "practical man," has closed. Such men must needs be non-progressive. They can carry out what they have been taught, but they cannot originate, neither do they seem to be able to learn anything after a certain time. They are also apt to be as overbearing and disagreeable as they are ignorant and inefficient. The men who are now eagerly sought by large manufacturing concerns are those who are as highly educated as the complicated machinery of education can produce. Who can bring into action the greatest concentration of human knowledge concerning the particular sub-

jects at which they are put to work, and who can devise new methods, invent new processes, obtain new products and discover new facts? Who, so to speak, can think chemically and speak mechanically, and yet without all must be of the highest moral character, honest to a fault, and able to acquire the art of business, cultivating that element of tact which enables a man to control others and yet hold them as friends, and last, but not least, that disposition of mind which causes a man to seek his reward in the character of his work rather than in personal glory; whose happiness depends on the success of his work, on tangible results, rather than in applause or in mere learning, versatility, self-approbation, or any other of the effervescent phenomena which some lads exhibit to the men who are toiling wearily, and often none too competently, to carry on large industries, on the maintenance and development of which depend the subsistence of thousands, and who are seeking far more eagerly than is generally supposed for real scientific assistance. Such young men make the interests of their employers their own, and, glad as they may be to get their sip of the sweet, are not afraid to take the bitter without a grimace when it comes, as it always will, sooner or later, and yet without have the independence to resist in a frank and manly way any treatment, open or covert, which may savor of injustice or oppression. The strength and power of such men are never underestimated or unappreciated by business men, say what one will about the soullessness of large corporations or the heartlessness of mercantile business, for the maintenance and development of a large business call for educated brains at the head of each and every department, and no business can afford to lose brains that have been educated in its employ and which are actively working to advance its interests.

I have dwelt on this subject rather fully, because I wish to make it clear that the young chemist is liable to be an indeterminate quantity. He may enter an analytical laboratory and he may stay there all his life, every day making analyses; he may rise to own it; he may occupy himself with the processes of manufacturing and leave the mechanical working out to others or do it himself; he may step out into the works and superintend the processes, improve them, invent new ones, get up new products, and what not; he may rise to be superintendent of the whole works; if he has the peculiar ability he may go on the road and sell the goods, and as he knows all there is to be known about the articles he handles and those handled by others, he makes a salesman par excellence; understanding better than any one else the facts and reasons involved in the manufacture, and knowing all that there is to be known about the articles, he may be called to take charge of an agency or may be put to study the market to size up rivals; he may be made a director, or, for the matter of that, may rise to be president of the company; he may in time start a manufacture of his own; he may study law and become a distinguished patent expert; he may teach; he may become a successful farmer; he may become the chemical adviser of manufacturers, whose interests are not of such a chemical nature that

they can afford to employ the whole time of a chemist, but whose problems are none the less difficult, and hence require the assistance of a skilled, learned and experienced chemist. I might still prolong this list and yet know not when to stop nor depart from the facts, for of all of these cases, and more besides, I know from actual acquaintance.

It might be inferred from the above that man for all of them. In the strict sense this is true, but a course of study is not since the future of a chemical student is out a course of study that should fit a so uncertain, it would be impossible to lay intended to do more than to ground a student thoroughly in the principles and practice of the science in such a way and to such an extent that he may be able to take up any application of the science he may choose and follow it up by independent study and experimentation. Education bears a relation to a young man that is somewhat akin to that between the powder and the gun. We may charge him with facts as we do a gun with powder, we may show him how to get more, how to hold the gun, how to aim, but he must provide the gun, the ball and the cap. He may have all these and still not be able to hit the mark; he may have a big charge of powder, but a small ball; or his gun may knock him down by its recoil, or go off at the wrong time, or perhaps at the wrong end; or perhaps he has all but the cap, and another must provide it, and that is the saddest case of all. But, fortunately, experience proves that the average young man, who is properly and well educated, and who applies himself faithfully to his work, does not fail, but advances steadily.

It would not be courteous for me to discuss or criticize the various chemical courses of our leading educational institutions, but I may indicate the kind and nature of a course in chemistry which, so far as my experience indicates, will educate men who are best able to fill the demands made by this country; and I might add here that in some respects this country calls for somewhat different courses of study than those of Germany, one cause, among others, being the wide difference which exists between the school education of Germany and the United States.

The student must be thoroughly practiced in English. This may appear an unnecessary statement, but any one who has to deal with young men knows how frequently they are deficient in the ability to write and speak English well, or even to spell correctly. I do not wish to decry other studies, nor to involve myself in a discussion of the value of a classical education, but I do wish to emphasize most strongly the necessity for a thorough education in our own language. I know of but one way to accomplish this, and that is by long and continual practice. Not only should the essays of the student be corrected, but his daily writing, analytical reports, lecture notes, etc., should be corrected not only as to facts and accuracy, but in spelling and style as well. The ability to speak easily, clearly, briefly, forcibly, with good articulation, and to the point, not only to another, but before an audience, should be most assiduously practiced.

*Note.—"Relation of Teaching to Research in Chemistry"—Stone, J., Am. Chem. Soc., xv., 665.

"Education of Industrial Chemists"—Lunge, *ibid.*, xv., 481.

"Education of Industrial Chemists"—Pemberton, *ibid.*, xv., 627.

"How Chemistry Is Best Taught"—Mabery, *ibid.*, xv., 463.

"Education"—Bayer, S. of M., *Quart.*, xlv., 248.

"Organization and Management of Chemical Works"—Carey, J., *Soc. Chem. Ind.*, xli., 901.

The ability to read German is absolutely necessary to the chemist. Most of our chemical literature is in German; indeed, most of the progress in chemical science is now in Germany. To learn to read a language is far easier than to learn to speak it, for in the written language most of the difficulties are already overcome. To read, one has but to learn the idiomatic differences between the language and English, and become familiar with the vocabulary. The idiomatic differences are not so numerous as to offer great difficulties. They are all in print before us, and, in the case of German, a small grammar, intended only for assistance in translation, with unceasing use of the dictionary, in a surprisingly short time enables the average student to read scientific German with facility, and opens to him the immense field of German scientific literature. To learn to speak and write German with any degree of correctness is a much greater task. The construction in a foreign language is always difficult, and requires great study and practice to accomplish much. While the chemical student may learn to write and speak German if he has the time to devote to it, the education in slight reading of scientific German is absolutely necessary, and is not difficult. Unless he has this ability he can hardly hope to become an independent chemical student or worker. French is not so absolutely necessary as German, but still of great importance. It is an easy language to learn to read, and the chemical student should make himself an adept at slight reading of it.

It would extend this article beyond its legitimate limits if I should attempt to discuss all the studies of a chemical course; suffice it to say that a thorough grounding in history, the elements of law, political economy, mathematics, metaphysics, logic, ethics and literature should be effected. The specialist is not made by picking out a few studies, but by concentrating as he advances; he advances from the general to the particular. The minds of the great specialists are like burning glasses, which collect a great amount of light and heat and focus them on a given point. The development of a scientific education should be like the building of a pyramid, which rises from a broad and ample foundation to an apex, from which an immense field of observation is commanded.

It is needless to say that a most thorough study should be made of physics, and especially of electricity, which every day is finding new applications in chemistry, and offers tempting fields for research to the chemist, and for technical applications as well.* Heat, on account of its vital importance in chemical changes, should receive particular attention.

With this introduction, let me consider the course in chemical instruction which I consider best adapted to develop independent young chemists.

In many institutions of learning, the instruction in chemistry is too much confined to analysis. Many young men are

graduated who, while fair analysts, do not seem to be capable of anything else. They are not familiar with experimental chemistry, or with manipulations, apparatus and methods not used in analysis; they are unable to prepare pure substances, and their knowledge of the mechanical methods of handling substances on a large scale amounts to practically nothing. Such men are naturally handicapped when entering a works, for methods of manufacturing do not resemble methods of analysis, and the difficulties which assail one on all sides are quite different from those met in analytical work. But in the study of experimental chemistry and in the preparation of pure substances the student at once comes in touch with the manufacturer in a way that one trained only in analytical chemistry ever can.

The course in chemistry should begin, therefore, in the laboratory, and with a thorough and elaborate drill in experimental chemistry. The principal elements and their compounds, properties and chemical conduct should be studied experimentally. The knowledge thus gained is invaluable. Indeed, such a course of study should be a part of any education, for a man cannot now be considered educated who is not familiar with the properties and behavior of matter. Much of the success of any man, and I might say, also, much of his happiness, will depend on his mastery over matter, and his ability to combat it when it becomes inimical to him. (Only a knowledge of chemistry and physics (physical science) acquired by personally conducted experiments can give him this. No amount of reading books, or even listening to lectures or witnessing experiments made by others, can give him the real knowledge, and the full appreciation of the things about him and their influence upon his welfare. Such actual and practical knowledge puts under a man's control a great power, which he can utilize for his own good and safety. Failure, distress and poverty are too often not merely synonymous with ignorance, but with ignorance of physical science. If a man does not master the things about him, they may easily master him.)

During the course in experimental chemistry there should be given a thorough lecture course in chemistry, illustrated elaborately with experiments, and accompanied with continual quizzing on the lectures, and all experiments should be sketched and described, and these notebooks should be frequently criticised by the instructor. After experimental chemistry is completed a course in blowpipe analysis should be given, after which should follow qualitative analysis, and then quantitative analysis. Aside from its scientific side, quantitative analysis requires a large amount of practice in order to develop a skillful and exact manipulation. While some students are quicker than others, there is no short cut to accuracy in this subject. In teaching quantitative analysis, care should be taken to keep abreast of the times as to methods. The instructor should be in touch with the laboratories of large works and take advantage of their methods or improve them. Men working on only a few forms of analysis, as in the case of steel, fertilizers, etc., evolve methods

which are amazingly rapid, yet are also accurate. There is no particular call for secrecy in this matter, and any instructor can acquire them. As a rule it is to the interest of manufacturers to have men educated in methods which have been adopted in the trade. It is, however, not uncommon to find methods of analysis taught in colleges which are antiquated, and could not be used in practice. Along with quantitative analysis, assaying and also mineralogy should be taught.

Toward the end of the instruction in quantitative analysis instruction should be given in the preparation of pure substances. The importance of this branch of the chemist's education cannot be overestimated. Not only should the purity of the preparation be called for, but its yield must be determined and reported, and the side products and wastes should be examined. The results at first obtained are usually humiliating to the student and disappointing to the instructor, but as the manipulation of the embryonic manufacturer increases results soon begin to appear which encourage and incite to renewed efforts. No chemist can hope to become a successful investigator, either in pure or applied chemistry, who is not skillful in the preparation of pure substances. The element of practicality soon begins to show itself as the student gets increasing yields without deterioration of purity.

During the course a carefully considered set of lectures should be delivered on technical chemistry, and special attention should be devoted to the relationship which exists between manufactures. A well-stocked technical college should be at the use of the students, and visits to representative manufactures should be made. A course of instruction should also be given in what is now termed "Chemical Engineering." This is a difficult subject to teach, and but few in this country are really fitted to undertake it. There appear to be great possibilities in classification in it, and a good opportunity for a good text book.* The various operations of manufacturing chemistry should be considered in detail, and grouped so as to be as independent as possible of particular substances, but rather appear as related to groups of substances of allied properties. Thus, in precipitation, solution, evaporation, stirring, heating and filtration, the various mechanical devices should be grouped and their adaptations to substances of allied properties explained.

The steam plant, pumps, vacuum and pressure apparatus should be lucidly described, so that the initial types and their manifold variations and adaptations may be understood. In this course of instruction, however, the inclination should be toward the adaptation of mechanics to chemical treatment rather than toward mechanical engineering. One reason for this is that it may easily make the course too long to fit in our educational institutions, and another is that the technical chemist can always count on the assistance of mechanical engineers for minor details and adjustments in any works of magnitude with which he is connected. Almost all the mechanical devices for handling chem-

*Hoyer's Mechanische Technologie is the only one of note.

*Note—Note the sudden development of the idea of electrical power in works, doing away with long steam lines, shafts, belting, etc., and reducing the coal consumption in some cases one-quarter to one-third, and the end is not yet.

ical substances on a large scale will be found on study to consist of a simple principle which has been modified to adapt it to the properties of the particular article. The experienced instructor is, therefore, able to treat the subject of chemical engineering with some degree of pedagogical success, and ground his students in the principles, yet still indicate many possible variations, adaptations, and evolutions for which the nature of the substance to be handled or the exigencies of manufacturing may vary. Thus a stirrer, consisting of an upright shaft provided with flat wings attached at right angles, and resting in a vat, is a simple mechanical device; but depending on the specific gravity, the viscosity, the temperature, the composition, etc., of the liquid to be stirred, many modifications will call for study. Thus the wings may be set at a bevel; secondary immovable or movable wings may be attached, the shape of the vat may be varied, the stirrer may run on a seat, or it may be hung free; it may be lifted out or not; it may be of wood or metal, or both; its motion may be simple or compound. It is evident, however, that a study of stirring machinery will leave a much clearer idea in the student's mind, and enable him to make a better choice of stirring machinery when called on to draw up specifications which include this form of mechanical treatment than if he had studied stirrers only as he met them in the various branches of manufacturing. In this latter method of study, which is the usual one, no clear, systematic or coordinated knowledge of stirrers as a class of mechanical devices is obtained, nor is any exact knowledge obtained of the modifications of a mechanical type to adapt it or develop it to suit varying conditions. Without this clear insight into the matter, the student is not well able to evolve new forms of stirrers himself, and hence is unable to attain the most perfect relation between the substances and their mechanical treatment under the particular conditions of the works. This always tells against him in the long run. He will have to depend largely on the army of salesmen who pursue him unceasingly, each of whom is positive that his device surpasses all others, but who is rarely willing to allow a trial of his apparatus, least of all on new articles. In this way he does not always get the best appliance, but that of the most skillful and adroit salesman. Again, so separately and exclusively are manufactures frequently carried on that devices used by one manufacturer, and which are entirely unknown to a manufacturer of articles of an entirely different nature, might be of great value to the latter, since his products, although entirely different, still possess properties which in some points call for almost the same mechanical treatment. In this case, again, the study of the mechanical device as a principle, and its modifications to adapt it to different conditions, is manifestly of great value to the young technical chemist. He is not only able to secure that adaptation which best suits his case, but, understanding clearly the relation between the adaptation and the principle, he is in a position to evolve or

invent himself an adaptation better than any other.

The above is true for most of the mechanical devices used in chemical manufacturing. For instance, in the case of boilers, the young technologist may fairly go insane when besieged by boiler agents, and, as a rule, has very little idea what he really needs. He may put in a boiler capable of quick firing and high pressure, when neither are of much importance to him, and when a heavy draught of steam rather than power is what he wants. A study of boilers and their different types with a view to the various demands made upon them in chemical manufacturing aside from maintenance of power will enable him to choose what is best adapted to his particular wants. The course in chemical engineering is best preceded by a course in mechanics, but not so full a one as is given in a course in mechanical engineering.

I have dilated on this branch of the education of chemists because I have not only had to educate young chemists, but to employ them in manufacturing. The gaps in their education which might be referred to inexperience by the man of business are not so easily overlooked by one who is also an instructor, for much of this ignorance, which, I might add, may cost the employer an amount as great or greater than the cost of the young man's education, could have been overcome during his education. Even such a matter as wooden vats is a constant source of vexation to the young chemist. Given a certain volume of liquid to handle, shall the vats be made tall and narrow, or low and wide? Shall there be a few large ones or several smaller ones? How much space shall be allowed under them? How near together shall they be? What accidents are to be provided against? There are certain principles underlying these simple matters which an experienced technical chemist can easily impart to his students and vexatious errors and serious losses consequently may be avoided by them.

The practice in the preparation of pure substances makes an admirable introduction to practice in the use of typical forms of technical apparatus on a small scale, and any time spent on this will be valuable indeed to the student, no matter whether he intends to devote himself to applied or pure chemistry. Practice in the use of miniature technical apparatus is, however, a branch of work that is best taken up as post-graduate. During the last years a great progress has been made in applying technical apparatus to laboratory work, and many of these forms of apparatus are as attractive and exciting to chemical workers as bits of transparent carbon crystals are to our betters. Each new catalogue from Germany puts one into a fever. Until a chemical course has rooms provided with these miniature imitations of technical apparatus it can hardly be called a course in chemical engineering, any more than a course in mechanical engineering could be so called if lathes, planes, drills, etc., were not provided for the use of students. Let me draw attention to some of the details of this department of technical chemistry. The vats of manufacturing are represented by wash tubs,

headless barrels, agate ironware and stoneware. Short pieces of lumber enable us to elevate them in tiers or in any other relation. Brass and copper pipe with rubber hose connections and copper wire bindings lead the liquids where we wish. A steam pipe supplies dry steam throughout the whole laboratory. The floor is bricked, inclined and channeled. It will stand heat or liquids. A kit of ordinary tools is at hand, saws, plane, grindstone, etc., and also a small forge. Shafting is handy over all, and is run by electric motors. Electric power wires can be had anywhere, and thus power can be used independent of shafting. Small bronze pumps driven by independent motors can be placed where they may be needed. A plentiful supply of several way cocks is on hand, and among the miniature pieces of technical apparatus are steam kettles, filter presses, pressure digesters, provided with stirrers, open evaporators, filter trays, distillation and column apparatus, centrifugals and gas blast furnaces, large and small balances and scales, and gas compressors. Vacuum and pressure cocks are in convenient places for attachment. I might go on with the list, but this will be enough to indicate what the department should be. Students may work alone, or in groups, in case of more complicated operations. It is needless to dilate on the value to the student of the work done in this department.

The chemical course should include a most thorough drill, not only in stoichiometry, the mathematics of chemistry, but also in mensural calculations. The volumes of tubs, vats, barrels, pans and what not must be readily calculable by the technologist. The more familiar a man is with higher mathematics, the better; no time spent on it can be lost, but dexterity in arithmetic and in simple and compound proportions is of great importance, although I fear it is often overlooked or underrated in our chemical courses. Dexterity in calculating volumes and weights of substances into gallons and pounds is called for all the time. Hence this must not be overlooked when teaching the metric system, useful as the latter is. I have known young men who have been well educated, but who have been much perplexed at the calculation of problems requiring more familiarity with an engineer's handbook than great erudition, and which are constantly recurring in chemical practice; as, for instance, how many inches deep must a cone-shaped kettle with a round bottom be filled to contain a given number of pounds of a certain liquid of a certain specific gravity.

Throughout the course a thorough drill in draughting should be given, and especially in free-hand sketching. The ability to draw will be invaluable to the technical chemist. Especially is it important to be able to illustrate his ideas by rapid sketches, for these save endless trouble with the mechanics with whom he has to deal.

Some instruction should also be given in the rudiments of building and strength of materials, particularly as related to factory buildings.

There are some other subjects in which young technical chemists are inclined to be woefully deficient, but which are capable of being included in the chemical

course, and even if not taught as fully as they might be, ought to be explained to the student sufficiently to enable him to go on with the subjects himself, and also to know something about their literature. I allude to the business side of applied chemistry, including double-entry bookkeeping, computations of cost of materials and manufacturing costs, distribution of costs, estimation of profits, charging off for wear and tear, rating, organization, nature, characteristics and management of labor, factory organization, emergencies, and the common principles of business and patent law.

It will always be of great advantage to the student to spend a year or two post-graduate and devote his time to higher chemical study undistracted by other studies. During this time he should carry on under competent instruction some purely scientific original investigation, and not only acquaint himself with the methods of research, but also become familiar with the ways of reading on chemical subjects, the indexes and keys to chemical literature, the great journals, and the other details of chemical literature. In carrying on an original investigation, it would be, perhaps, more to the benefit of the student if he were also practiced in producing known substances by new methods. Much of our original investigation, especially that of youthful savants, consists in making new substances by well-known methods. These new substances are valuable in many ways in scientific classification, and are dear to their discoverers, but the other line of work is fully as valuable to the student, viz., finding new ways to make known substances. When experimenting in both forms of procedure he is more likely to be successful in achieving what does not often fall to the lot of the student to do, i. e., make new substances by new methods. In manufacturing, new processes are as important as new products; hence the young investigator should be practiced in both these kinds of work. It must never be forgotten that in technical chemistry the demonstration of chemical facts is made practical on a large scale with little loss and at the lowest cost possible. It is evident, I think, from this that the study of pure chemistry and the education in purely scientific research, by which I mean the ability to discover new chemical facts, must not be overlooked or slighted, else the technical chemist may not have material to work on and may come to resemble a hen that sits on glass eggs.

In the above it has not been my attempt to describe in detail a complete chemical course, but only to indicate what appear to be some of the more important subjects of such a curriculum, that the student may be guided to some extent in his choice of a course. As in all other matters in this life, the element of individuality enters most vitally into education, and the student will do well to choose men rather than institutions, as is the custom in Germany. The most important element in the student's life is personal contact with powerful and highly educated men, who incite him to work, enthuse him, and develop in him the ability to think for himself and originate, to use knowledge to produce new knowledge. In the intense excitement which accom-

panies original work the acquisition of knowledge becomes mere play, and students soon learn how to ransack libraries and mine their own information. In actual life men do not read and study to prepare for recitations or examinations, but to assist them in the production of new ideas, or new facts; i. e., new knowledge. Knowledge plays the part of a fertilizer to the active, growing, producing mind. Any other relation is liable to produce mere pedants, men who are filled with knowledge, like water-soaked sponges, and who emit it, like sponges, in the same condition in which it was absorbed. A good encyclopaedia is worth tons of this deliquescent humanity.

[Written for *The Era*.]

THE PRESERVATION OF CLIPPINGS.

By Marcus Benjamin, Ph. D., F. C. S.

In presenting so ample a subject to the readers of *The Pharmaceutical Era* it seems proper to apologize for two things—the imperfection of the scheme and the personal references to the reasons of its existence. In regard to the former, by way of explanation, it may be said that the scheme is a development, and, as nothing that comes from the human mind is without imperfections, it is therefore open to criticism. To explain the personal element is perhaps more difficult, but I think it is best, in attempting the description of that which has received favorable comment from many sources, to make reference to the reasons that brought it into existence.

Nearly sixteen years ago, at the beginning of my professional career, I found myself the fortunate, as I then thought, recipient of a great number of technical journals containing information on scientific subjects. They seemed far too valuable to destroy, and yet it was impossible to keep them all. The files were incomplete, and, moreover, as they were received in consideration of certain advertisements, they were liable to be discontinued at any moment.

Each one contained something of value. To keep them all was out of the question, and so I began to clip them. On every clipping, however, I was careful to put the name of the journal, usually abbreviated as "E. & M. J.," for *Engineering and Mining Journal* (there were only three pharmaceutical journals published in the United States at that time), together with the exact date of issue and the volume and page. This I found very important, for in quoting from a clipping I could at once give a foot note showing its exact locality; for instance: "See *Scientific American*, vol. 57, p. 39, July 16, 1887."

Let me digress in order to emphasize the value of exact references. Most persons refuse to accept statements unless you give them some authority for the fact. An amusing illustration of this kind occurred to me recently. A well-known publisher asked: "What degrees has Professor Prescott of the School of Pharmacy of the University of Michigan?" I promptly replied "M. D. and Ph. D." Unwilling to accept the offhand statement, he persisted with a "Where do you get your facts from?" "You will find a sketch of his career in the *Scientific American Supplement* for August 22, 1891," was the answer.

Later in the day his secretary said to me: "You were right about Professor Prescott's degrees. How did you know?" My response was to the point. "I wrote the article myself." In the course of nearly ten years of cyclopaedia and dictionary work many instances have occurred in which disputed facts have been settled by reference to clippings, which would have been absolutely worthless as authority unless accompanied by the very important indication of source, with date. There is another phase of it. A clipping from a Detroit paper would carry more weight concerning a disputed point of an event in the career of Governor Bagley, for instance, than would a cutting from the *Memphis Avalanche* or the *Worcester Spy*.

To return to the clippings. At first I preserved them in an envelope, and soon had several envelopes full. Then I secured several hundred sheets of note paper and pasted the articles in them. But being of an economical turn of mind, I made the blunder, which, even now, I sometimes find was a fatal one, of putting more than one item on a single sheet. Under no circumstance must more than one item ever be pasted on a single sheet. In any collection there will soon accumulate a mass of miscellaneous material, and the tendency will be to place it together. Thus I have one heading for recipes, under which, before long, my glues, cements, blackings, etc., were all mixed up. I had not time to undo what was done, but at once I laid down the rule of pasting only one item on a sheet of paper.

On the back of each sheet I write two things: First, the subject; second, the title of the clipping. Thus, under the general title of nitrogen, I have items about the nitrogen oxides and the nitrogen acids; consequently, I find my sheets read, as for instance:

"Nitrogen—Nitrogen and Electricity" (being a clipping from the *Boston Journal of Chemistry* for January, 1877), and "Nitrogen—preparation of nitric oxide," being a clipping from the *Scientific American* for May 24, 1879. These sheets are all alphabetized under the second title, except as they refer to special subjects. That is to say, I try to keep the items having direct reference to nitrogen as an element together, those having reference to nitric acid together, and so on. In such a matter the personal judgment of the individual must be followed, and in this feature lies the great imperfection of any system. I have separate places for hydrogen, nitrogen and oxygen, but items on liquefaction of gases are sent to gases. This is purely arbitrary, but I see no other way to advise. Again, the subject of sewer gas came into prominence, and for a time I filed the items under gas, but the package grew too bulky, and so I made a new one for sewer gas and sent it to S. It is necessary to exercise arbitrary and special judgment in such matters. I group my metallic mixtures under the general head of alloy, and there are the clippings from brass to type metal, but if I should (as I frequently do) find any one kind of alloy, as brass, for instance, growing too bulky, it would at once be given an independent heading. Alkaloids form another group, but I have

a separate heading for opium alkaloids and one for quinine. The reasons are obvious. Cosmetics, under which formulas and notes on hair dyes and face preparations are kept, as well as disinfectants, are necessary groups. It would be impossible to give separate places to the many items otherwise, which, it must be remembered, are all alphabetically arranged, each one on a separate sheet of paper.

At first I used note-size paper, and had sheets cut for me in lots of 500. These I place in folders of heavy brown paper. A separate folder is devoted to each subject, on the outside of which is written the general title. Thus, in the letter G, I find my titles run as follows: Gallium; gas, illuminating; gas, liquefaction of; gases; gems, diamonds; gas, amber, rubies, etc.; glass, glue, glycerine, gold and gums. These folders are made a little larger than two of the note sheets, and are folded in the centre. In this way they are made to hold all of the single sheets. For each letter of the alphabet, I have two black cards of thick pasteboard, and between these I place the individual packages. The covers are held over the packages by rubber bands, but as these break and soon wear out, I would recommend in their place a bandage made of cloth tapering to points, where a piece of narrow ribbon or braid is sewed on for use in tying. This bandage system is used by Professor Edward S. Morse of Salem, Mass., for holding pamphlets, and is the best thing for this purpose that I have ever seen.* Between the rubber band and the cover I have an envelope on which is written a list of the titles of the packages contained between the boards, so that at a glance the subjects may be seen. This I use as a receptacle for loose items that for the moment I have not time to paste up. Also at the end of each letter there is a folder marked miscellaneous, in which are placed items that, as yet, have no regular folder for themselves.

Such is the scheme that I have followed for many years with considerable advantage to myself. Of course it has disadvantages, but it has served me well and profitably. If I were to begin such a collection again, a desirable modification, it seems to me, would be to use a thin brown paper on which to paste the clippings, taking care, however, to have a paper not too thin to write on. Also, I should have the paper cut the same size as an octavo pamphlet, so that such work might be included in the folders. Envelopes may be substituted for folders, but they tear, grow unwieldy and the flaps have a tendency to stick out. They are not nearly so neat as folders.

A final word as to the application of such a system. It goes without saying that much time is spent in gathering clippings, and there are many who claim that

*Note.—In the Scientific American of August 1, 1887, I have described Professor Morse's invention as follows: "His latest invention is a pamphlet jacket, consisting of a broad band, which, by means of a tape and hook attached, secures a set of pamphlets in a compact bundle that may be easily undone, and attached to the band is a card on which to inscribe the contents."

it does not pay. My own experience is (being a young man when the collection was begun), that handling the clippings in pasting them up impressed the subjects on my mind, thereby proving of great value to me. The collection distinctly led to my advancement, because I became known as one to whom application could be made for information. Although unwillingly, under any circumstances to loan the clippings, still exceptions were sometimes necessary, and in three instances very important matters were settled by a study of the material that I gathered. One instance may be suggested, for I think, I may safely say, that my friend, Mr. H. Y. Castner, who consulted them freely when he perfected his process for making sodium, leading to cheaper aluminum, found some items that were of the utmost value to him in securing his patent. At all events when his process was purchased in England he sent me a valuable expression of his appreciation in the way of a small block of stock. Another excellent illustration is to the point. A well-known journal offered a prize for the best essay on a selected subject. From the collection of clippings I was at once able to give a resume of everything of importance that had been published within the ten years immediately preceding. The prize was awarded to my essay. Incidentally, I may perhaps at this place be permitted to refer to an incident in that connection with which the editor of *The Era* is familiar. In certain quarters the essay met with adverse criticism, and, curiously enough, facts were discredited in such a way as to show an ignorance of the subject on the part of the reviewer. The very items objected to were from articles by authorities high in science, but whose opinions had been condensed into a single statement. Another illustration. A report on a technical matter was called for by the Government, and its preparation placed in my hands. There was not time enough to study the subject up. An evening's work on my notes, and the treatment was mapped out. Certain data were then gathered from trade sources, and the report was sent to Washington. It received high praise, and gained for me a pleasant recognition in scientific circles as an authority on certain subjects.

In many other ways have the clippings proved of value to me, and in conclusion let me say that I have never made it a point to collect papers or items, but simply have gathered in what has proved to be the wheat from the many papers and periodicals that have come to me.

QUININE PILLS.—A method of preparation which is advocated by Kurstner, directs the intimate mixing of 10 grams quinine sulphate with 2 grams each of citric acid, powdered gum and sugar of milk, then massing with syrup. The cut pills are rolled in starch, then in talc.

DEATH RATE OF CITIES.—The greatest death rate in the world is said to be that of Rheims, France, where the proportion is 23.62 per one thousand each year. Minneapolis, Minn., reports the fewest deaths, only 9.6 per thousand.

[Written for *The Era*.]

BOTANY FOR THE PHARMACIST.

By Frederick C. Newcombe, B. S., Ph. D., Assistant Professor of Botany, at present in charge of botany at University of Michigan.

The object of this paper is not to indicate what pleasure the pharmacist, in common with other people, may derive from the study of plants, nor to point out how the comprehension of biological principles will have a vastly important philosophical bearing on his habits of thought and his attitude in the study of men, but to show (1) why the pharmacist, as a pharmacist, needs botany, (2) how much of it he needs, and (3) how he can obtain it.

In the commercial world there are three groups of positions which the pharmacist occupies, or is likely to occupy, in which he is brought into relation with plant structures. These positions are (1) in the collection and identification of crude material for the manufacture of medicines, (2) in the wholesale and retail trade of partially prepared plant material, such as rhubarb and mustard, and (3) in the examination of foods and condiments.

It does not require more words to convince one that the profession of the pharmacist touches at many points on the science of botany. We may pause here, however, to look a little more closely at the range of the science that is of practical utility. This brings in the second heading named above—viz., How much botany does the pharmacist need?

The whole range of botanical science may be divided into systematic botany, structural botany and physiological botany. What part of this great field will the pharmacist find of use in his profession? The manufacturer certainly needs to understand systematic botany, so that he may be able to identify his crude material as the particular plant that he wishes to use. But he receives much material that is partially prepared and incapable of identification by the ordinary method of analysis of plants by external features. In such cases he must study the internal structure of this material, study it often microscopically. This means that he must understand not only systematic, but structural botany. And he must understand the whole range of the plant kingdom, for his material comes from as low in the series of plants as the ergot and Iceland moss, and rises through the ferns and Lycopodium to the highest flowering plants.

But not only is systematic and structural botany a necessity to the manufacturer, but physiological botany can hardly be dispensed with, especially if one wishes to attempt new methods and new preparations. Physiology teaches one how, for instance, the fatty and ethereal oils come into existence. In what plants and what tissues they are to be found, and at what age of the plant they are greatest in quantity.

The botany needed by the analyst of medicinal and food preparations is pre-eminently structural. Since the preparations come from all parts of the plants, from root, stem, leaf, flower, seed and fruit, the pharmacist, in order to be able to determine the composition of these

preparations, must know the structure of all parts of plants, whether he has to deal with the organs in their whole condition or with the same organs ground to powder. Moreover, in order to do this kind of work intelligently, the analyst should understand systematic botany; for his material comes from all groups of the plant kingdom. Physiological botany is in this kind of work less of a necessity than in manufacturing, yet the pharmacist who knows not only how to recognize what he sees, but knows also how the substance came to be, knows the process by which the plant manufactured it, will do better work, with better satisfaction to himself and to others, than the man whose thoughts travel no farther than to identify the object which he sees. The one works as the skilled archaeologist, who, when a ruin is uncovered, not only recognizes the utensils and fragments, but from the pieces is able to construct the whole, while at the same time he knows the period to which they belong and the rank of the family that possessed them. The other works as the laborer, whose spade turns the earth and who knows little more than to separate the valuable remnants from the inclosing dirt.

If, then, we may assume that at least two departments of botany are a necessity to the pharmacist who attempts to analyze crude plant material and foods, and that the third, or physiology, is more or less desirable according to the particular direction of the work involved, we may now go a step farther and inquire by what means the untaught are to obtain this knowledge.

Unquestionably the best way to obtain this knowledge is by a course of study in a good college. The best colleges of pharmacy in this country are now advertising laboratory work in all of the three directions indicated above as comprising the science of botany, though, of course, these schools give, as they should, a pharmaceutical bearing to all the work. A student cannot learn to identify crude plant material and to analyze foods in any college by taking in the laboratory two to four hours a week for half a year. Any school that professes to give students structural and systematic botany and the determination microscopically of adulterations in such a limited period should be looked upon with suspicion.

But there are many young men who, unfortunately, are unable to enjoy the privileges of a college course, but who, nevertheless, wish to know something about the uses of botany in pharmacy, and who would be grateful, no doubt, if they could be told how to proceed to gain something of the outlook and insight which their more fortunate fellows obtain from skilled instruction. To such persons it may be said for their comfort that, as in other professions in life, so in pharmacy, the college may not fulfill the measure of success of the hard-working, self-taught student. The college furnishes an opportunity for a man with ability and energy to acquire what he will with greater ease and in shorter time than he could by himself. The college does not furnish brains nor compel a student to learn against his will. Other things being

equal, the college man will excel the non-college man.

The man, however, who would study botany by himself, or with such aid as some friend may give him, can, in time, with patience and perseverance, accomplish much in some directions. The mere ability to name plants by the use of an artificial key is not a very great task, neither is it a scientific study. But the learner, if he is wise, will leave the classification of plants till he has made some progress in the study of structural botany. For this latter study there are two methods, not equally good, which might be pursued. By the first method, the student would begin with the study of medicinal or food material, with cinchona bark or mustard, for instance. He would learn the structure of these preparations and their histology, and then take up another, learning each for itself and by itself, till he had gone over the more common crude materials and food preparations. But there are two reasons why this would not be a good plan for study. In the first place, it requires more time than the other method, and, in the second place, it gives one mere fragments of knowledge, not the knowledge that is power. By way of illustration, it might be asked whether any one would think of learning chemistry by a similar method. Does one study chemistry by taking up chemical substances one by one? Does he not rather group those substances and study the interrelations of the members of a group, and thus arrive at principles and laws that give him knowledge that is power? And so, also, it is in the study of botany. Even for pharmaceutical botany one should begin with the study of groups of objects. Better, then, than the study of mustard as mustard, and of wheat, flour and coffee, each by itself, would be the study of seeds, to see what they have in common in structure and contents. The best point, provided one has the facilities, at which to make the very beginning of botanical study, is undoubtedly with the cell; not with the mustard cell nor with the coffee cell, but with the whole group of cells, to see what they have in common, and how they differ from one another. The practical utility of such a method will be apparent, also, when it is stated that in examining powder of unknown composition one can often decide its source, as from root to stem, leaf or fruit, though he may never have seen the particular plant from which the material came. In this way one receives a hint that will often greatly lighten his labor.

With these preliminary remarks, an attempt may now be made to outline a course of study in botany, which course, it is believed, is in accordance with the method that will give in the end the best results. It must be remembered, however, that by this or any other method difficulties will arise that, without the aid of an instructor, will render great proficiency difficult, if not impossible, in many cases.

The order of study recommended is the following:

1. Structural and physiological botany combined.
2. Systematic botany.
3. The study of articles of trade.

These three departments of the subject will now be taken up briefly and in greater detail, and proper helps suggested.

The first thing that one who wishes to work by himself must obtain is a proper manual to direct his study. Such books are not numerous, though the number of manuals on particular parts of botany is great enough. There has recently appeared from the publishing house of D. C. Heath & Co. an admirable little book by Professor Spalding of the University of Michigan, which is just what the beginner needs. This book tells the student what equipment to purchase and how to prosecute his study, while it presents to him, by the laboratory method, both the structure and the physiology of plants. In addition to Professor Spalding's little book, "Guide to the Study of Common Plants," the student should procure Strasburger & Hillhouse's "Practical Botany," published by Macmillan & Co. This book has not arranged its material in such good order as the former one, but it contains many details especially interesting to the pharmacist which Professor Spalding's book omits. A third manual recommended is Flueckiger & Tschirch's "Principles of Pharmacognosy," by W. Wood & Co. There is no need here of advising the student what apparatus or tools to procure, since the first two manuals named give explicit and reliable directions for this purpose.

A fourth book which the student would find useful in explaining the physiological processes is Goodale's "Physiological Botany," published by Ivison, Blakeman & Co.

When several months have been spent in studying the structure and physiology of plants by the aid of the books named above, the classification of plants may be taken up and carried on with the continued study of structure. For the study of classification there is no better manual than the new edition of Gray. The learner would better obtain both the "Lessons" and "Manual." They may be purchased separate or in one binding. Should the reader reside in Southern United States or in the Rocky Mountain region, he would need, instead of Gray's Manual, either Chapman's "Flora of the Southern United States," or Coulter's "Manual of the Botany of the Rocky Mountain region."

When one's study has gone so far that he knows how roots, stems, leaves, flowers, seeds and fruits are constructed; has learned the marks by which he can identify the different kinds of tissues and cells, can identify, for instance, collenchyma, bast fibres, tracheids, spiral vessels, etc.; when he has learned also the means of identifying starch grains, protein granules and other cell contents, both optically and microscopically, then he is ready to begin the investigation of medicinal and food preparations.

For this practical study manuals are needed as for the preliminary study. In English there is, unfortunately, no suitable manual that is up to date; the best is "Food, Its Adulterations, Etc.," by Hassall, but the book is old, with many mistakes in text and figures. In German there are two hand books that can be

especially recommended for the examination of foods. They are Schimper's "Anleitung zur mikroskopischen Untersuchung der Nahrungs und Genussmittel," and Moeller's "Mikroskope der Nahrungs- und Genussmittel." Even though the reader understands but little German, he can get much out of these two books, especially from that by Schimper.

In all of this practical work, especially in examination for determining purity, there is one rule which is to be followed. Always study the structure of material known to be pure before examining the preparation whose purity is to be tested. It will in most cases be best and easiest to learn this structure from uninjured parts of plants rather than from preparations. For instance, if one is to test mustard, he should first become acquainted with the structure of mustard seed; then he can readily determine whether his sample on examination shows any other elements than he discovered in the seed, that is, whether it is adulterated. By such a method of procedure it will readily be seen that the analyst can examine for adulteration any new preparation that turns up. After he has learned the method of working, all he has to do, if anything new appears on the market, is to procure the plant organ from which the preparation is made, acquaint himself with its structure, and then test the preparation.

The foregoing directions have been given for the aid of those especially who have had no botany. Those who have had the part of the work given in most of our high schools by the study of Gray's or Wood's Lessons and Manual would do well to pursue the same course as indicated in the preceding paragraphs, except that they will not need so much time for the study of classification. Those persons who have thus had the systematic work would best procure Professor Spalding's Manual, together with Strasburger & Hillhouse's, or for these two books Flueckiger & Tschirch's may be substituted, though the material used for study in the last named is often difficult to procure, and therefore Professor Spalding's book would be the more convenient.

In closing, it might be of help to bring before the reader in concise form the limitations to his progress in the science of botany. He should understand, then, at the outset, that botany does not consist in the naming of plants, as many innocent people believe. He should understand that it cannot be "picked up" by one's self any more readily than chemistry can. The part that can be most readily acquired, and which all can acquire, is the systematic part, as given in Gray's "Lessons and Manual." With the microscopic structure of plants, one may also do a great deal by patience and perseverance. For the other departments of botany one would best limit himself to reading, until such time as he can have the assistance of competent instruction.

A CHINESE CHOLERA POWDER, exploited in Alsace-Lorraine, was found to contain arsenic and mercury, and its sale has been prohibited.

HYDRATED NITROUS OXIDE is $N_2O \cdot 6H_2O$.

[Written for The Era.]

PALATABLE CASTOR OIL.

By A. E. Hiss, Ph. G., Chicago, Ill.

Some time ago many American journals were reprinting a formula devised by N. Pretzker of this city for a palatable form for the administration of castor oil. His formula directs the use of one-half ounce of egg yolk, three and one-half ounces of castor oil, one and one-half ounce milk and two drops oil of bitter almonds. Upon trying this formula with No. 1 castor oil I failed to obtain a product in which the taste and the odor of the nauseous oil were disguised; in fact, the emulsion was almost as disagreeable as the plain oil. Upon further experimentation I found the following to be almost everything that could be desired, the taste and odor of the oil being entirely covered, the mixture proving almost as pleasant a drink as could be devised.

Castor oil.....	2½ fl. ounces
Egg yolk.....	½ fl. ounce
Syrup.....	¼ fl. ounce
Oil of cassia.....	20 drops

The egg yolk should be thoroughly beaten in an emulsion mortar, the two oils incorporated gradually until emulsified, finally adding the syrup. The volatile oil and the syrup with the emulsificant completely disguise the taste and odor of the castor oil. Such an emulsion contains 70 per cent. of the oil. In addition to assisting to disguise the taste, the cassia oil serves the further purpose of preventing griping. The amount indicated may not be sufficient for all individuals, and may be increased to thirty drops, or, perhaps, even more. The dose of such a mixture is from one-half to two ounces. It acts in most cases with exceeding rapidity, very often within less than an hour. It would, therefore, be an excellent cathartic in cases of poisoning, where, as is well known, briskness of action is required. No doubt, the fineness of division of the oil assists its cathartic action. No addition of milk is necessary to this mixture, though it may be advisable, in administering it to children, when they are not to know that a medicine is being given.

SPECIFIC GRAVITY OF OIL OF PEPPERMINT.—Schimmel's report gives these figures for the several varieties. For Mitcham, 0.905 to 0.910; German, 0.895 to 0.920; French, 0.920; American, 0.910 to 0.920; Japanese, 0.890 to 0.910.

ARGENTAMIN is a new Schering product. It is believed to be a highly effective antiseptic, and its preparation was the result of a prolonged study of the action of a large number of organic bodies on albumen and the allied compounds. The body is described as a solution of ethylene-diamine—silver phosphate.

GLUCOSE IN URINE.—Bizzari directs to saturate small strips of pure woolen cloth with a ten per cent. water solution of stannous chloride and dry them at a moderate heat. If then a few drops of the suspected sample be placed upon this prepared fabric and dried at a moderate heat, glucose produces a dark coloration, and by comparison of the color with the colors produced by solutions of glucose of known strength, an approximate idea of the amount of glucose present may be gained.

PHARMACY.

COLORING PRINCIPLE OF COCHINEAL.—Von Miller and Rhode have determined as a result of investigation that the statement that carminic acid is a glucoside which decomposes into glucose and carmine red is a false one. They assert that carmine red and carminic acid are identical. After boiling carminic acid for some hours with dilute sulphuric acid carminic acid and a strong reducing substance of unknown composition can be separated. The latter substance has no doubt been looked upon as a sugar. Formic acid is also produced in this decomposition.

ADMINISTERING TINCTURE OF IRON.—A correspondent of the American Therapist says he has employed for years with very satisfactory results the following method of administering tincture of chloride of iron: One-third or one-half of the white of an egg is well beaten up with a little water in a cup and a teaspoonful of 5 to 20 per cent. solution of the tincture of the chloride in water is added and thoroughly mixed, the whole then being drunk by the patient. No injurious effects upon the teeth are noticed, and patients find the taste not at all disagreeable.

DISTILLATION OF METALS.—Prof. Kohlbaum of the University of Basle has been conducting some very interesting experiments, and reports the result to La Nature, relating that by employing a very infusible glass and a perfect vacuum, he succeeded in obtaining, in a greater degree of purity than ever before known, the metals potassium, sodium, selenium, tellurium, bismuth and thallium. An interesting fact in connection with tellurium was that there disappeared from its spectrum no less than thirty-five lines heretofore considered characteristic of it, but now seen to be due only to impurities.

PHOTOGRAPHY FOR THE SKIN SPECIALIST.—German experimenters have been applying photography in the study of the skin, and the British Journal of Photography reports that by the aid of a small incandescent lamp and a metallic reflector they have succeeded in projecting on the epidermis a light so strong that by the use of very rapid plates all the details of the texture of the skin and such small markings as are ordinarily invisible or only occasionally present, are readily obtained. The positives are enlarged, the prints colored, with results of great interest and value to dermatologists.

SOME NEW SULPHONIC ESTERS.—Bayer & Co. (Eberfeld) have taken out patents for the preparation of several of these bodies. (Ph. Ztg.) The principle involved is the heating of an alkyl sulphonic chloride with an alkali and a phenol. The chief body treated of is the ethyl and guaiacol compound. Ethyl sulphonic chloride so treated with guaiacol and alkali yields the sulphonic compound of both radicals. This body is a transparent, somewhat unstable oil, boiling at 200 degrees with partial decomposition. The corresponding eugenol compound boils at 240 degrees. These bodies possess a strong physiological action, and are being introduced into medicine.

LYCETOL has as substitute names, lutepezine, dimethyl-piperazine and dipropylene-diamide.

CINCHONINE is one of several isomers of cinchonine, with which it has often been confounded. Jungfleisch and Leger (in *Compt rend.*) now give a detailed description of this base, from which we learn that its constitution is expressed by the formula $C_{19}H_{17}N_3O_2$. It crystallizes from hot alcohol in small, brilliant, colorless anhydrous needles, which are insoluble in water, ether or dilute alcohol. It is soluble in a mixture of chloroform and cold alcohol, but only slightly soluble in ether alone. The crystals melt at 273 degrees C., and volatilize unchanged. Dextro-rotatory, this property augmenting as the concentration of the alcoholic solution increases.

ELIXIR CALISAYA AND COCA.—Percolate 60 grains calisaya bark in No. 60 powder with a mixture of 1 dram oil orange, 10 minims oil lemon, 5 minims oil coriander, 4 fluid ounces alcohol, 10 minims hydrochloric acid, 3 fluid ounces glycerine and 3 fluid ounces water, adding alcohol and water in the same proportion, till 10 fluid ounces of percolate is obtained. To this add 2 fluid ounces of fluid extract of coca and sufficient syrup to make 16 fluid ounces. Then add a little Fuller's earth, shake well and filter, adding through the filter enough simple elixir to preserve the volume. Each teaspoonful equals 5 grains calisaya bark and $\frac{7}{16}$ grains coca leaves. (E. E. Fisher, Amer. Druglist.)

TINCTURE OF IODINE.—C. F. Henry, in a paper presented before the Edinburgh Chemists' Assistants' Association, speaks of the great variation in composition and strength of the tincture, as dispensed in various countries. He suggests a formula for a tincture which may be employed both externally and internally, taking the place of the present tincture (B. P.) and liniment: One and one-fourth ounce each of iodine and potassium iodide are allowed to dissolve in one-half fluid ounce water, then one-half fluid ounce of glycerine and enough alcohol to make 20 fluid ounces added. Such a tincture is suitable for both internal and external use, is miscible with water in all proportions, and its dose would range from 2 to 8 minims.

TO STERILIZE DRINKING WATER.—F. Watts, analyst to the government of the Leeward Islands, in a communication to the Chemical News, presents some results, not merely of interest, but of valuable service. The important statement, if it be authenticated, is made that micro-organisms are precipitated from hard water by the addition of ferric chloride, the supernatant water being absolutely sterile. Ferric chloride causes no precipitation in soft water; hence it is recommended that after its addition a little lime water or diluted solution of sodium carbonate be added; this causes the necessary precipitation. About 1 to $1\frac{1}{2}$ fluid ounces of solution of ferric chloride is sufficient to purify and sterilize 100 gallons of water. For ordinary use it is well to dilute it 1 to 10, and of this solution use a teaspoonful to the gallon of water.

ELIXIR CALISAYA DETANNATED.—E. E. Fisher contributes to American Druglist this process: Mix 600 grains of calisaya in No. 60 powder, with one ounce calcined lime; add three and one-half ounces water; stir well and let dry slowly. Percolate with a mixture of ten minims hydrochloric acid and alcohol, adding sufficient alcohol to bring the bulk up to four fl. ounces. To this add forty-five minims oil of orange, ten minims oil of lemon, five minims oil of coriander; shake thoroughly; add four drs. glycerine, seven fl. ounces syrup and enough water to make one pint. Finally add four drs. Fuller's earth, shake well and filter. Each teaspoonful represents five drs. of bark. The elixir is miscible with iron preparations.

GLYCERINE IN FLUID EXTRACTS.—O. Linde obtains fair results with a number of fluid extracts by evaporating 10 grams to half the quantity, dissolve the residue in 50 cc. of water and add solution of lead subacetate, drop by drop, to complete precipitation. The precipitate is allowed to settle, the liquid decanted through a wetted filter, to which the precipitate is later transferred and washed with water. The filtrate is then acidulated with a few drops of dilute sulphuric acid and solution of phosphotungstic acid added until precipitation ceases, when the mixture is filtered and washed as before. The filtrate is now made alkaline with dilute solution of sodium hydrate, evaporated to a syrupy consistence, 30 cc. of a mixture of absolute alcohol and ether added, filtered, and the insoluble matter washed with ether-alcohol. The ether-alcohol solution is evaporated in a wide flask having a long neck, and dried to a constant weight. The residue is almost pure glycerine, containing but very little coloring matter. Some extracts contain constituents which are more or less soluble in water, and ether-alcohol will give low results, but in the main the process is a satisfactory one.

ASSAY OF VINEGAR OF OPIUM.—In the American Journal of Pharmacy, L. F. Kebley describes in detail a method he has devised for estimating the amount of morphine contained in vinegar of opium. He adds 8 to 10 cc. of strong ammonia water to 100 cc. of the vinegar of opium to render it alkaline. Then 2 cc. of ether are added and the whole vigorously shaken for ten minutes and set aside over night. The alkaloids are then filtered out through a wetted filter paper and washed very sparingly. While still moist, the precipitate is washed into a small capsule with a very little water and to the contents of the capsule are added 10 cc. of 5 per cent. sulphuric acid, gentle warmth applied by a water bath, the solution cooled, allowed to stand an hour, filtered and the filter and residue washed well with distilled water. The process of the U. S. P. can be followed from this point, or, if desired, evaporate in a weighed capsule to 14 grains, and proceed from this point as directed by the Pharmacopoeia of 1889. The purity of the morphine should be tested by the lime water test, and as a check of the method, the writer recommends to titrate the morphine with a volumetric acid solution.

EXAMINATION QUESTIONS.

This Department is for the publication of questions and answers from our readers; the object being to place before them questions for self-examination and to indicate the directions in which study can be profitably carried on.

We solicit questions to which replies are desired, particularly questions suggested by personal experience and study.

Correct answers to the questions in each series will be published in a subsequent issue of the paper, as announced together with the names of all persons sending us correct replies.

Write the number of the series at the top of your reply and write on one side of sheet only.

Address—EDITOR PHARMACEUTICAL ERA,
106 Fulton Street, New York.

SERIES NO. 4.

Replies should reach us not later than June 15, 1894. Correct answers, together with the names of all persons answering will be published as soon thereafter as possible.

(1) How would you distinguish between carbolic acid and creosote?

(2) What is a symbol, also what does a chemical formula represent?

(3) How would you prove that the specific gravity of iron is 7.50?

(4) Define stigma, and mention a drug which the pharmacopoeia directs shall consist wholly of stigmas?

(5) How would you distinguish between gallic and tannic acids?

(6) Name the best excipient for a pill mass with each of the following: An essential oil, potassium permanganate, Balsam copaiba, silver nitrate, corrosive sublimate.

(7) How would you dispense the following prescription?

Ferrous sulphate 60 grains.

Potassium carbonate 36 grains.

Mix, and divide into 24 pills.

(8) How many one-eighth grain doses should there be in one-eighth ounce bottle morphine sulphate as found in the market?

(9) What is an alcohol chemically considered? Name those covered by your definition that are official in the United States Pharmacopoeia.

(10) How would you prove the air to be a mixture and not a chemical compound?

(11) What is the difference between benzoin and benzol?

BENZO-PARA-CRESOL.—Prepared by action of benzoyl chloride on the sodium salt of para-cresol. Insoluble in water. Soluble in ether and hot alcohol. Properties antiseptic.

TO MASK COD LIVER OIL.—Place twenty parts cod liver oil, one part freshly ground and washed coffee and one-half part pure ivory black in a flask and warm over a water bath to a temperature of 50 degrees to 60 degrees C., keeping the flask well corked. Let stand for three days, with occasional shaking; filter and preserve in well corked bottles.

SALICYLIC ACID is prepared by a newly patented German process, through the action of carbonic anhydride upon a mixture of phenol and excess of potassa, the operation being conducted in a closed vessel at a high temperature. Subsequent precipitation of the salicylic acid is effected with a mineral acid, and the product purified.

**FORMULARY
AND
QUESTION BOX.**

The object of this department is to furnish our subscribers with reliable and tried formulas and to discuss questions relating to practical pharmacy, prescription work, dispensing difficulties, etc.

Requests for information are not acknowledged by mail and ANONYMOUS COMMUNICATIONS RECEIVE NO ATTENTION. To insure answer in the next number, queries should be in our hands ten days prior to the date of issue.

6063. Prescription Difficulty.

(Drugs.)—In further solution of your difficulty commented upon in the April 1 Era, S. A. Epstein, Chelsea, Mass., advises the following procedure: Mix the 1 oz. aromatic syrup of rhubarb, 1 oz. castor oil, and ½ oz. powdered acacia and rub until a smooth and uniform mixture is obtained, then add the 6 drs. paregoric and 1 oz. tincture cardamom compound.

6122. Syrup Yerba Santa.

(B. S.) A correspondent from Philadelphia submits the following formula, which he says yields a very satisfactory preparation:

- Yerba santa.....4 ounces.
- Cloves2 drams.
- Anise1 dram.
- Coriander seed1 dram.
- Cardamom seed1 dram.
- Potassium bicarbonate ½ dram.
- Cochineal½ dram.
- Sugar2 pounds.
- Water, enough to make 2 pints.

Boil the aromatics, except the cloves, with the yerba santa, potassium, bicarbonate and water for one-half hour. Then add the cloves and cochineal and boil twenty minutes more. Strain, add the sugar, dissolve with a gentle heat, adding enough water to make the quantity measure two pints.

Criticising the formula, it would seem that the amount of sugar directed to be taken is rather more than can be held in solution by the water at ordinary temperatures. It makes too heavy a syrup, with a tendency for the excess of sugar to crystallize out.

6147. Phospho-Guarana with Celery.

(F. A. S.)—Your query seems to be abundantly answered in the May 1 Era, p. 399, No. 6,134.

6148. Paste Metal Polish.

(G. C. Y.)—See formulas for Putz pomade, p. 455, Era of Nov. 15, 1893, also Nos. 4128 to 4153 in the Era Formulary.

6149. Percentage Solutions.

(T. B. H.)—All the points in your query seem to be well covered by answer 5,799, page 503 of the Era for Dec. 1, 1893.

6150. Luminous Paint.

(C. J. C.)—You will find a suitable formula on p. 306 of the Era for April 1, 1894. We would not advise a phosphorus preparation.

6151. Tooth Powder.

(W. H. L.)—We cannot give you the formula of the proprietary preparation you name. You cannot fail to find a formula satisfactory to you among the many the Era has published. Consult the indexes for last year. See also Era Formulary.

6152. Antipyretic Mixture.

(Salob)—We cannot supply you with the formula for the antipyretic mixture you

name. Read paragraph in the National Dispensary under acetanilide, page 11. See also formula No. 5,339, Sept. 1, 1893, Era, page 204.

6153. Anti-Curl.

(C. J. C.)—Diluted glycerine is reported to have been used with success. The negroes of the West Indies employ soap, which they wet and use as a pomade. Perfumed white soft soap has been suggested, as has also liniment of ammonia suitably perfumed. It would seem that something of an oily and alkaline nature is the desideratum.

6154. Nitro-Sulphuric Acid.

(N. B.)—There seems no available information concerning this acid, if there be such an one. As a guess at its nature we hazard the conjecture that it is a mixture in molecular proportions of nitric and sulphuric acids, though what would be the chemical constitution of the mixture is hard to state.

6155. Liquor Laws and Kansas Druggists.

(Salob)—We have never been able to understand fully the intricacies of the laws governing the sale by druggists of liquors in prohibition States. Rather than refer the points raised by your query to us, we would suggest you write the Secretary of State at Topeka for a copy of the law in question.

6156. Lustre on New Rubber Goods.

Arkansas Traveler wishes to know how to remove the white lustre from new black rubber goods. The Tyer Rubber Co. say that by this lustre or white finish is presumably meant the "bloom of sulphur," as it is called in the trade. If so, it can be removed by boiling in a strong solution of chloride of lime. Will any of our readers give the result of their experience in this direction?

6157. Moxie.

(W. F. K. Drug Co.)—You know what are the claims for this preparation. The Western Druggist says it is a decoction of oats made into a syrup and flavored with sassafras and wintergreen. In another place the same journal says it is believed to be a syrup of sarsaparilla and licorice, flavored with oils of wintergreen and sassafras. Chemists have reported no alkaloids in it. Nothing very definite, you see.

6158. Cosmetic Cream.

(A. Drug Co.)—Try this: Melt together 265 grains petrolatum, 50 grains white wax and 30 grains spermaceti. While cooling incorporate 40 grains bismuth oxychloride and ½ grain mercuric chloride, the latter previously dissolved in a little alcohol, and finally, when nearly cold, stir in 20 minims spirits of rose (4 drs. oil to 1 pint alcohol) and 1-16 minim oil of bitter almonds. The Era has published many formulas for color creams and similar preparations. Consult indexes.

6159. Catarrh Balm.

(W. J. S.)—Here are three formulas which produce articles of the same general nature and method of use as those which are found in the trade as proprietary preparations:

- (1) Thymol 1 part, oil wintergreen 2 parts, bismuth subnitrate 65 parts, petrolatum 2132 parts.
- (2) White wax 60, paraffin 30, oil sweet almonds 120, petrolatum 240, sodium nitrate

30, water 30, oil lemon 10, oil orange 2.

(3) Vaseline 1 oz., thymol 3 grains, bismuth carbonate 15 grains, oil wintergreen 2 minims.

6160. Syrup Wild Cherry for Soda Fountain.

(F. A. S.)—The following is a formula which has been found to give satisfaction and will doubtless meet your wishes:

- Elixir wild cherry.....20 ounces.
- Syrup.....1 gallon.
- Solution gelatin.....1 ounce.

The elixir of wild cherry directed is composed of 1 pint fluid extract of wild cherry and 1 gallon simple elixir. The solution of gelatin may be made of about the strength of an ounce of gelatin to the quart, or of such consistence as experiment demonstrates is best for the purpose.

6161. Lemon Sugar.

(D. C. T.)—By lemon sugar is intended sugar which is flavored to taste with oil of lemon. The general formula for these oil-sugars directs one drop of the ethereal oil to be thoroughly rubbed up with 2 grams powdered sugar. The proportion may be varied to suit your pleasure and the purpose for which the article is to be employed. Under the name lemon sugar are found mixtures of which this is a type: Sugar 4 pounds, tartaric acid 3 ounces, oil of lemon ¼ ounce, intimately mixed. In the formula for dry lemonade to which you refer you can use which best pleases you.

6162. Expansion of Metals by Heat.

(Subscriber.)—The changes of bulk which metals undergo with changes of temperature are relatively greater than those of other bodies, but each metal has its peculiar rate of expansion, as shown in the following table taken from Brande's Chemistry, in which 1,000,000 parts of each metal are supposed to be heated from 32 degrees to 212 degrees F.

	Increase in length.	Increase in bulk.
Platinum.....	1 in 1,131	1 in 377
Palladium.....	1 in 1,000	1 in 333
Antimony.....	1 in 923	1 in 307
Iron.....	1 in 846	1 in 282
Bismuth.....	1 in 718	1 in 239
Gold.....	1 in 682	1 in 227
Copper.....	1 in 582	1 in 194
Silver.....	1 in 524	1 in 175
Tin.....	1 in 516	1 in 172
Lead.....	1 in 351	1 in 117
Zinc.....	1 in 340	1 in 113

6163. Composition for Cleaning Wall Paper.

(Mrs. H. C.) Try the following: Mix together one pound each of rye flour and white flour into a dough, which is partially cooked and the crust removed. To this 1 ounce of common salt and ½ ounce of powdered naphthaline are added, and finally 1 ounce of corn meal and ½ ounce of Venetian red or burnt umber. The composition is formed into a mass, of the proper size, to be grasped by the hand, and in use it should be drawn in one direction over the surface to be cleaned.

(2) Another method is to take fresh made dough to which has been added a few drops of ammonia. Go carefully over the paper, and as the dirt accumulates on the outside of the dough, work it to the

inside, and as the ammonia evaporates, add a few drops from time to time.

6161. Iodine and Calcium Iodide.

(W. G. R.) wants an opinion on this:

Tincture of iodine.....70 drops.

Iodide calcium q s.....1 ounce.

M. S. Shake well and take 5 drops 3 times a day.

There is obviously some mistake here, either in writing or copying the original prescription. Iodide of calcium is a solid, very soluble in water and alcohol, but the mixture directed would not produce a solution which could be administered as ordered. Undoubtedly, the solvent intended has been inadvertently omitted, and further comment and conjecture are impossible. The physician should be consulted with regard to his purpose.

6165. Potassium Iodide Incompatible with Cinchona and Iron.

(Rhd) dispensed this prescription:

Potassium Iodide.....1 ounce.

Elixir bark and iron.....4 ounces.

M. S. Dose, teaspoonful three times a day.

He used the N. F. elixir No. 45 in compounding, and found a greenish yellow precipitate was produced. What was the reaction, and should the mixture be dispensed with a shake label?

The elixir of calisaya and iron of the N. F. contains the official phosphate of iron. This salt produces in solution with potassium iodide a reaction of an oxidation and reduction nature, the solution acquiring a greenish yellow color. In this instance, the alkaloids of the calisaya are precipitated by the iodide, and the suspension of the precipitate in the colored solution is what has attracted your attention. The mixture is an incompatible one, and should not be sent out, even with a shake label.

6166. Ferril Oxidum Hydratum cum Magnesia.

(H. E. R.) in making this preparation obtains a clear, dark red solution, rather than a precipitate, and wishes to know what is the matter. The cause of the difficulty is excessive acidity of the solution of ferric sulphate; there being enough free acid present to combine with all the magnesia to form soluble salts, having no magnesia for precipitating the iron. You must be sure that your iron solution be made strictly in accordance with the U. S. P. formula, for the formulas of that work are calculated with exactness, the quantities of chemicals directed for the desired changes being computed with accuracy. Arbitrary deviation or carelessness in manufacture will not result in the proper preparations. Try this one again, being sure that in making your iron solution the proper quality and amount of iron sulphate be used, that the acids employed are of the prescribed strength and that the finished solution be of official specific gravity.

6167. Interstate Registration.

(Sajoi) The interchange of certificates is a matter of mutual agreement between the different boards of pharmacy of the different States. We do not know whether any such arrangement has been made by the Kansas board of pharmacy with the boards of other States or not. The secretary of your State board can give you information upon this point. The licen-

sure of any one of the following boards of pharmacy can be registered without further examination upon paying the required fee and furnishing a certificate from the secretary of the board examining him that he passed the examination five per cent. higher than was actually required in Michigan, Wisconsin, Minnesota, North and South Dakota, Washington and Missouri. Of course, this is reciprocal, any one of the boards in the States named recognizing the certificates of each of the others. For further information, write to the secretary of the board of pharmacy of the State in which you wish to become registered.

6168. Laxative Syrup for the Soda Fountain.

(C. H. M.)—Try the following:

Oil cinnamon.....1 dram.

Oil cloves.....2 drams.

Oil nutmegs.....80 drops.

Tincture tolu.....12 drams.

Tincture ginger.....12 ounces.

Extract cascara, fluid,

tasteless.....16 ounces.

Magnesium carbonate.....2 ounces.

Water enough to make....4 pints.

Triturate the oils, tinctures and fluid extract with the magnesium carbonate, gradually add enough water, passing it through the filter to make 4 pints.

To make the syrup for the fountain, take

Cascara extract (as above), 6 ounces.

Flavoring extract of

orange.....2 ounces.

Syrup.....1 gallon.

Solution gelatin or soap

bark.....1 ounce.

Color with caramel if necessary.

A formula for tasteless fluid extract cascara, as may be found on page 258, March 15, 1894, Era, query No. 6042.

6169. Liquid Glue.

(G. C. Y.)—(L) A liquid glue, always ready, and which will keep indefinitely, is made by dissolving 60 parts borax in 100 parts water, adding to the solution when boiling, 4 parts 90 per cent. calcined potash, and then adding this mixture while boiling to 1450 parts of hot glue liquor having a density of 12 degrees Baume.

(2) Acetic acid.....4 ozs.

White glue.....3 ozs.

French gelatin.....4 fl. ozs.

Shellac varnish.....4 drs.

Distilled water.....4 ozs.

Dissolve the glue in the acid with heat, and the gelatin in water with heat. Mix the two solutions gradually until homogeneous; then add the varnish, and put into bottles.

(3) Macerate 3 parts of good glue in fragments of 8 parts of water for several hours, adding $\frac{1}{2}$ part of hydrochloric acid and $\frac{3}{4}$ part of sulphate of zinc, exposing the whole for 10 to 12 hours to a temperature of 175 degrees to 189 degrees F. This mixture is permanent, remains liquid, and forms an excellent paste.

6170. Government White Wash.

(H. F. L.)—The following coating for rough brick walls is used by the United States Government for painting light-houses, and it effectually prevents moisture from striking through: Take of fresh Rosendale cement 3 parts, and of

clean, fine sand 1 part. Mix with water thoroughly. This gives a gray or granite color, dark or light, according to the color of the cement. If brick color is desired, add enough Venetian red to the mixture to produce the color. If a very light color is wished, lime may be used with the cement and sand. Care must be taken to have the ingredients well mixed together. In applying the wash the walls must be wet with clean, fresh water, then follow immediately with the cement wash. This prevents the bricks from absorbing the water from the wash too rapidly, and gives time for the cement to set. The wash must be well stirred during the application. The mixture is to be made as thick as can be applied conveniently with a whitewash brush. It is admirably suited to brick work, fences, etc., but cannot be used to advantage over paint or whitewash.

6171. Coca Wine from the Leaves.

(H. P. K.)—Here are several formulas:

Coca leaves.....3 ounces.

Brandy.....1 $\frac{1}{2}$ ounces.

Sherry.....24 ounces.

Tokay wine.....6 ounces.

Macerate for about a week, press, and to the liquor add 9 grains of citric acid; set aside for a few days more and filter.

(2) Coca leaves.....60 grams.

Red or pure white wine (containing 10

to 15 per cent. of alcohol) enough to make 1,000 liters.

Macerate for 10 hours, then filter.

(3) White sugar.....14 ounces.

Coca leaves in No. 29 pow-

der.....5 ounces.

Distilled alcohol.....24 ounces.

Claret wine, up to.....20 ounces.

Mix the spirit with 15 ounces of claret, moisten the powder with it and pack in a percolator, placing the sugar in the receiver. When the fluid commences to drop, close the orifice, and allow to macerate for 24 hours. Then allow to percolate, adding more claret until 20 ounces of liquid have been collected.

6172. Cold Cream.

(K. N. W.)—We can suggest no better formula than that given in the pharmacopoeia of 1890. It differs somewhat from that given in the previous issue of the same work, the proportion of the rose water being greatly reduced, making a more stable preparation. Sodium borate has been added to increase its whiteness, a substance likely to prove objectionable in cases where the ointment is used as a basis in prescriptions containing ingredients likely to react with it. As the ointment is liable to become rancid when long kept, and the rose water to separate upon exposure, Laidly has proposed the substitution for the rose water of oil of rose and glycerine, the former in the proportion of two drops, the latter in that of four fluid drams, the quantity of spermaceti being increased by two drams. It may not be out of place to state that by warming the rose water before adding it to the fats in the official process, the danger of a granular ointment by partial precipitation of the spermaceti is obviated.

See also formulas in the Jan. 15, 1893, Era, page 63, and March 1, 1894, Era, page 212.

6173. Dry Plates for Photography.

(H. F. L.)—We cannot give the formulas for the emulsions used in making the Seed and Harvard dry plates, and lack of the necessary technical experience and skill prevents our giving more than a mere outline of the process of making dry plates in general. The manufacturers named have their own formulas, for which they claim certain advantages, and it is to them you should apply for what information they are willing to give. The coating of the plate is in principle merely bromide or other highly sensitive silver salt, suspended in or emulsified by gelatin or collodion, and flowed upon the glass plates, where it dries, forming the film which is later to receive the photographic imprint through the camera. Great experience and manipulative skill are necessary in the production of satisfactory plates, and there are as many formulas for emulsions as there are manufacturers, for each of the latter has his favorite formula, his little dodge. The amateur or small operator had best purchase his plates—not attempt to make them. We advise that if interested in photography you make a careful study of it, from books and by experiment, mastering its chemistry and its technical processes. Any dealer in photographers' supplies can suggest books of value, and there are several excellent journals devoted to the craft with which you should be familiar.

6174. Pulverized Iron and Pulverized Copper.

(M. M.) asks for information regarding the preparation of these two substances, directed to be used in the formula for a hair dye given on page 15 of the Jan. 1, 1883, Era. Powdered iron is official in both the United States and British pharmacopoeias under the title "Ferrum Reductum; or reduced iron." No process is given for its preparation in the present pharmacopoeia, though several processes have been proposed for obtaining it. Morgan of Dublin recommends the use of dried potassium ferrocyanide, thoroughly mixed with anhydrous ferric oxide, and calcination with pure potassium carbonate at a low red heat. The product contains all the iron in a reduced state, mixed with soluble matters, which are carefully washed away. A similar process has been proposed by a German chemist, iron oxalate being substituted for the ferric oxide. According to the United States Dispensatory, a powder of iron has been introduced into this country under the name of "alcoholized iron," said to be prepared, in the eastern parts of Germany, by attrition of iron filings with honey, by some cheap method, as by attachment to a saw mill or steam machinery. It has the appearance of powdered plumbago, but under the magnifying glass is seen to contain particles with the metallic lustre, and rounded as by friction.

Powdered copper may be prepared as follows: Mix equal parts of a saturated solution of copper sulphate with hydrochloric acid; in this place a strip of sheet zinc. The copper is thrown down in fine

powder. The powder is then washed with alcohol and dried as quickly as possible. You should be able to purchase these powders from your jobbing druggist.

6175. Stamping Powder for Embroidery.

(J. H. W.)—Ultramarine, to which has been added a small proportion of powdered resin, is generally used for stamping embroidery patterns on white goods. The powder is dusted through the perforated pattern, which is then covered with a paper and a hot iron passed over it to melt the resin and cause the powder to adhere to the cloth. The following are said to be excellent powders:

1. White.—One part each of resin, copal, damar, mastic, sandarac, borax and bronze powder, and two parts white lead.
2. Black.—Equal parts resin, damar, copal, sandarac, Prussian blue, ivory black and bronze powder.
3. Blue.—Equal parts resin, damar, copal, sandarac, Prussian blue, ultramarine and bronze powder.

In all these powders the gums are first to be thoroughly triturated and mixed by passing through a sieve, and the other ingredients carefully added. Other colors may be made by using chrome yellow, burnt or raw sienna, raw or burnt umber, vandyke brown, etc. For stamping fabrics liable to be injured by heat, the stamping is done by moistening a suitable powder with alcohol and using it like a stencil ink. White lead gives good results in this way. See also reply to query No. 6135, Era, May 1st, page 399.

6176. Sourcing of Infusions.

(H. W. S.) writes: "Some time ago I put up a preparation of crude cotton root bark, cramp bark, star grass and squaw vine, steeping the crude drugs for some time in hot water, and at last adding one and one-fourth pounds of sugar to the gallon of fluid, after which was added an ounce of alcohol to the pint. Now this mixture (several gallons) has soured. I have prepared sarsaparilla, stillingia and other alternatives in precisely the same manner, with the same amounts of alcohol and sugar, but with the addition of about four grains iodide of potash to the ounce of liquid, and it has always kept free from fermentation. Why did the former sour and the latter not? Was it on account of the iodide of potash in the one and not in the other? Or do the drugs mentioned in the former preparation require more alcohol to preserve them than those in the latter, and if so, how much is necessary? Further, is the therapeutic virtue of the sour preparation impaired or destroyed?"

We do not think such a preparation as you describe is a very scientific one, and the chances are that you will frequently have trouble with it. An infusion or decoction is very prone to decompose, and in this instance the drugs contain certain principles, soluble in water, which ferment under slightest provocation. The quantity of sugar employed is so small that it rather favors than prevents fermentation, and if alcohol is used it must be in such amount that the preparation is virtually a tincture in alcoholic strength. Then, too, the addition of alcohol to the infusion will precipitate gum, pectose and allied substances, materially

altering the composition of the preparation. Even with the sarsaparilla preparation you have been lucky that it did not spoil, for if the temperature is right it is almost sure to do so. We would suggest that instead of attempting to make a satisfactory preparation in this way, you use the fluid extracts of the drugs, modeling somewhat after the National Formulary Compound Elixir of Cramp-bark (No. 107). A well-made elixir will give you much better satisfaction, and will contain the medicinal virtues of the drugs in equal degree with the infusion you have been making, and which must be made strongly alcoholic to preserve it. The sour preparation is worthless, and should not be sent out. The iodide of potash has nothing to do with the question of preservation.

6177. Bleaching Sponges.

(E. and McC.)—Ordinarily sponges are cleaned and bleached by the use of permanganate of potassium, followed by a solution of sulphurous or hydrochloric acid. This is substantially the process adopted by the National Formulary, a method which satisfactorily whitens the sponges, but often partially destroys their tissues. Sometimes the sponges are first soaked in dilute hydrochloric acid and then treated with the permanganate. In bleaching, the first thing to do is to clean, wash and squeeze out the sponges. They should be well beaten to get rid of sand and loose earthy matter, soaked in water for some hours, then squeezed dry, and placed in a tub containing dilute hydrochloric acid. After remaining in this solution until all effervescence is over and no hard particles are seen or felt—stirring them about with a stick is useful to hasten the process—they should be well squeezed and transferred to a pan of water under a running tap. Next, the sponges are placed in a 2 per cent. solution of potassium permanganate. After soaking them for a few minutes—the exact time can be best judged by the color, which ought to be dark-brown—they are to be removed, again washed, and put into another tub of solution of half a pound sodium hyposulphite and one ounce oxalic acid to one gallon of water. Here the sponges soak for about fifteen minutes. Finally, take them out and wash them thoroughly. By this treatment the sponges are rendered perfectly white and remain so. Many sponges contain a more or less dark-colored core, and if treated only with permanganate and acid the core is either not bleached at all, or if bleached somewhat, the tint is apt to grow darker again. By the combination of the three solutions every portion is thoroughly and permanently whitened.

Roeser claims that bromine water is preferable for bleaching sponges, especially after being used in surgical operations. The sponge is thoroughly disinfected and may be put through the process eight or nine times without destroying its texture. His method is this: Wash the sponges in warm distilled water (not above 150 deg. F.) which contains in each liter 20 drops of 10 per cent. solution of caustic soda. After thoroughly treated in this manner, they are drained and placed in vessels containing the bromine water, which is made by adding 30 grams

of saturated aqueous solution of bromine to one liter of distilled water. Leave the sponge in this solution until it is discolored, and repeat with fresh bromine solution until it is thoroughly bleached, which is hastened by warmth and exposure to sunlight. After removal from the bromine bath, squeeze the sponges well and immerse them in a dilute solution of soda (2) drops of a 10 per cent. solution to the liter), and lastly wash out all traces of bromine odor with distilled water.

FORMULAS.

6175. Cholera Cures.

Bevan.

Magnesium sulphate2 drams
Sulphurous acid.....16 drams
Tincture capsicum.....4 drams
Water.....16 drams
Teaspoonful night and morning.

6179. Medical Review.

Strychnine sulphate¼ dram
Sulphuric acid, dilute.....½ ounce
Morphine sulphate.....2 grains
Camphor water.....3½ ounces

A teaspoonful every hour or two, well diluted. (In threatened collapse).

6180.

Tincture opium5 minims
Chloroform.....15 minims
Alcohol.....1 dram
Distilled water.....1 ounce
Take at a dose.

6181. Flatulent Dyspepsia.

Union Medicate.

Bicarbonate of sodium75 grains
Prepared chalk.....1 dram
Powdered nux vomica.....15 grains
Powd. red cinchona bark.....1 dram

Make twenty cachets. One before each meal.

6182. Anti-Dyspepsia Cachets.

Dujardin Beaumetz.

Subnitrate of bismuth.
Sulphate of magnesium.
Prepared chalk.
Phosphate of calcium—of each 2 drams.

Mix and divide into 32 cachets. One before each meal in dyspepsia, accompanied with acidity and flatulence.

6183. Application for Toothache.

Practical Dentistry.

Tincture opium1 ounce
Camphor.....2 drams
Chloroform.....6 drams

Dissolve and apply on wool to the cavity of the tooth.

6184. Local Dental Anæsthetic.

Ether1½ drams
Menthol.....1 dram
Extract of Indian hemp.20 grains
Oil of pepperment.....20 min.

6185. Orange Bitters.

Orange peel1 ounce
Candied citron peel.....½ ounce
Gentian root.....½ ounce
Cascarella.....½ ounce
Alcohol.....15 ounces
Water.....15 ounces
Macerate for a week, filter, and make up to 20 ounces.

6186.

Tonic.

Potter.

Quinine sulphate30 grains
Dilute sulphuric acid a
sufficient quantity.
Tincture chloride of iron.....2 drams
Water enough to make.....2 ounces

6187.

Quinine sulphate1 dram
Strychnine sulphate.....1 grain
Tincture chloride iron.....5 drams
Phosphoric acid, dilute.....2 ounces
Syrup lemon enough to
make.....6 ounces

A teaspoonful in water three times daily in nervous debility.

6188. Cream of Camphor.

1½ ounces of castile soap in shavings is dissolved in 6 fluid ounces of water, previously mixed with 2 fluid ounces of water of ammonia; the solution is well mixed with a solution of 1½ ounces chloride of ammonium in 6 fluid ounces of water, and a solution of 6 drams of camphor in 6 fluid ounces of oil of turpentine is then added, with brisk agitation in order to secure a perfect emulsion.

6189. Liquid Hydrastis, Colorless.

West, Dr.

Hydrastis in fine powder16 ounces.
Glycerin8 fl. ounces.
Ether,
Sulphuric acid, dilute,
Water, of each, sufficiency.

Exhaust the hydrastis with ether, recover the ether by distillation, add 8 fluid ounces of water, to which has been added about 1 fluid dram dilute sulphuric acid to the residue, let stand one week under frequent agitation. Pour off the aqueous solution and mix it with the glycerin.

6190. Home Liniment.

Am. Drug.

Cottonseed oil8 ounces.
Oil wintergreen¼ ounce.
Turpentine3 ounces.
Chloroform1 ounce.
Aqua ammonia3 ounces.

This furnishes an excellent embrocation. The wintergreen may be replaced with any suitable aromatic oil, such as rosemary, cedar or thyme.

6191. Clarified Honey.

Obtained by diluting the crude honey with half its weight of water, boiling for 15 or 20 minutes, according to the quantity operated upon, the scum being carefully removed, and then adding 5 or 6 times sufficient cold water to interrupt the boiling for not over half a minute. After boiling for another 15 minutes, the hot honey is strained and evaporated.

6192. Essence of Hannan.

Banana fruit, peeled1 pound.
Alcohol1 pint.
Water1 pint.
Macerate for 14 days, express, and strain.

6193. Soluble Essence of Lemon.

Oil lemon10 fl. ounces.
Alcohol125 ounces.
Chloride calcium300 grains.
Phosphate sodium.....1½ ounces av.
Carbonate sodium.....¾ ounces av.
Water19 ounces.
Dissolve the oil in the alcohol and add to it the chloride of calcium, dissolved in 5 ounces of the water. Then dissolve the two sodium salts in the remainder of the

water, and this to the alcoholic solution, shake well and repeatedly during four days and filter.

6194. Lemonade Essence.

Hager.

White sugar600
Distilled water400
Heat until dissolved, then add
Acetic acid40
Orange flower water.....160
Filter
Alcohol100
Oil of lemon recent.....10

1 part of this essence to 10 of water makes an agreeable lemonade.

6195. White Lilac Extract.

Ind. Pharm.

Tincture storax2 ounces.
Tincture orris root.
Extract cassia, from pomade.
Spirit neroli.
Rose water, of each.....8 ounces.
Extract tube rose, from pomade2 pints.
Alcohol4 pints.

6196. French Cold Cream.

Quince mucilage20 ounces.
Almond oil½ ounce.
Stearic acid5 ounces.
Glycerine1 ounce.

6197. For Chapped Hands.

Quince seed2 drams.
Water2 pints.
Boil down to one pint and filter, and cool, after which use in the following proportion:
Quince seed jelly8 ounces.
Glycerine4 ounces.
Bay rum4 ounces.
PerfumeQ. S.

6198. Paste for Comedones.

White clay (kaolin).....4 drams.
Glycerin3 drams.
Acetic acid2 drams.
Oil lemon5 drops.

Apply every night. In a few days the black specks can be easily pressed out or most of them will come out by simply washing the face with pumice stone soap.

6199. Corn Plaster.

Resin plaster, 5 parts; melt, stir in of sal ammoniac (in fine powder), 1 part, and at once spread it on linen or soft leather.

6200. Mustard Tablets.

Sixty-six parts of sweet almond oil and 33 parts of yellow wax are melted together, and, when somewhat cooled, 1 part ethereal oil of mustard is added, and the whole poured into molds of suitable shape and size and lined with tinfoil.

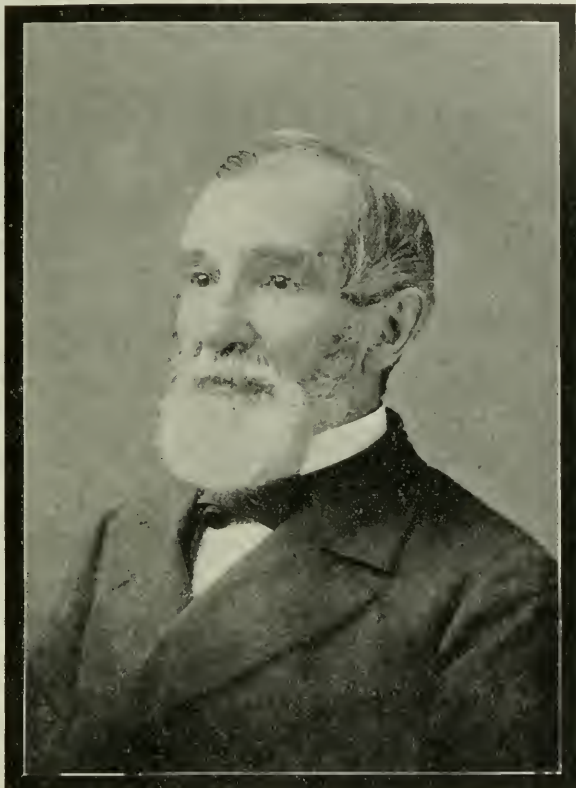
6201. Mucilage (Solid).

Ch. and Dr. Diary.

Steep gelatine 2 ounces in water 4 ounces until soft. Then add gum arabic 3 ounces and gum tragacanth 1-2 ounce, dissolved in water 6 ounces, and glycerine 1 ounce. Heat on a water bath until the desired consistence is reached.

6202. Leather Dressing (Brown.)

Make a creamy polish by boiling together 4 ounces of yellow wax, 1-2 ounce of potassium carbonate, 2 drams yellow soap and 12 ounces of water. With this incorporate by shaking 5 ounces spirit of turpentine and color with 4 grains of phosphine (brown aniline) in 1-2 ounce of water.



THEODORE METCALF.

IN the death of Theodore Metcalf, which occurred at his home at Brookline, Mass., April 26, after an illness of less than a week, the druggists of Boston lost one of their best friends and the city a distinguished citizen. His name was one of the best-known in the drug trade in Boston, and his house ranks among the foremost firms of the city. For more than half a century Mr. Metcalf carried on his business as druggist and apothecary on Tremont street, opposite the old King's Chapel burying ground, and, until the last four years of his life, he devoted his entire energies to the details of his extended business. He was born in Dedham, Jan. 21, 1812, his ancestors having come to that town from England in 1634. When he was 14 years old he was apprenticed for seven years to a druggist at Hartford, Conn., where he served for his full time and re-

mained for three years more as a partner. In the Spring of 1837 he started an establishment at 39 Tremont street in Boston, which surpassed any similar house then existing in the city. His success increased constantly, and his house ever maintained the high position which it took from the very start. In 1845 he gave up his business to Joseph Burnett, who had been his assistant for several years and who ran the business for ten years, until Mr. Metcalf returned to his old store. Then Mr. Burnett became engaged in the manufacture of chemicals. Within recent years there was established a branch house at the Back Bay, at the corner of Boylston and Clarendon streets. In 1883 the firm of Theodore Metcalf & Co. was dissolved by the retirement from it of Mr. Thomas Doliber, after twenty years of partnership.

Mr. Metcalf did much for the elevation of the profession of the pharmacist. As the Boston Herald said in an editorial: "Probably it is speaking within bounds to say that the late Theodore Metcalf did as much toward promoting and elevating the drug trade in Boston as any other man in New England. He lifted the trade of a pharmacist almost to the dignity of a profession, and he kept it there." He had an intuitive perception of character, and this enabled him to have around him men of the best executive ability. Several years ago he associated with himself the heads of his different departments in his immense business and incorporated the Theodore Metcalf Company, at the head of which is Mr. F. A. Davidson, and of which Mr. Metcalf was the treasurer at the time of his death. He was an energetic worker

and was at his store up to the Friday before his death, being taken ill on his way home.

One of the most interesting events in all his business life was the celebration of the golden anniversary of his career in Boston by a dinner which was notable in the drug trade of the city. It was served at the Bevere House, and was attended by a hundred of the leading citizens of Boston, including the Mayor, Dr. Oliver Wendell Holmes, William Warren the actor, Dr. Thomas L. J. Jenks and many others. The Autocrat then spoke in his inimitable way, recalling the times when he was practicing in Boston and Mr. Metcalf filled his prescriptions. Among other things, he said: "I like to call him 'Dr.' Metcalf. Many a time during the years of our long acquaintance, when not feeling just right physically, have I slipped in the rear door of Metcalf's, and he would fix me up something that would put body and brain in good working trim again." Gov. Ames and other officials of the State sent on that occasion letters testifying to their sincere appreciation of Mr. Metcalf's worth and integrity.

Mr. Metcalf was very active in affairs outside of his business, although he had no taste for political life and declined to accept honors which were offered him. For more than thirty years he was the treasurer of the Channing Home. He was one of the founders of the Boston Druggists' Association and was its first president, being at all times very active in its membership, giving to its members the best of his rich experience. He was one of the founders of the American Pharmaceutical Association, one of the promoters of the Massachusetts College of Pharmacy, a trustee of the City Hospital and of St. Elizabeth's Hospital and one of the first presidents of the Catholic Union.

For many years, and up to the time of his death, he was a devout Catholic, being a constant attendant at the Cathedral of the Holy Cross, as he was an intimate friend of Archbishop Williams.

In 1864 he was married to a daughter of E. D. Sohler of Boston. His widow, a son and three daughters survive him.

Mr. Metcalf was of a very charitable disposition, and was at all times ready to assist personally and financially all objects of a worthy and charitable nature. Another thing that marked him was his kindness to younger men. Many young men will testify to the great assistance and encouragement given by him, thus enabling them to prosecute successfully their aims in life.

The various organizations with which Mr. Metcalf was connected took appropriate action on his death. The Boston Druggists' Association called a special meeting, which was held at Young's Hotel on the afternoon of April 28. President J. F. Babcock presided and delivered a short eulogy of Mr. Metcalf. Tributes to the memory of the deceased were also paid by the Hon. Gorham D. Gilman, Prof. Marston, Thomas Dolber, N. J. Rust and others. A committee of three was appointed to draw up resolutions, which were adopted by a rising vote. They were as follows:

"With great sorrow our association is called to lament the sudden decease of its first president, our dear friend and fellow member, Theodore Metcalf. He has passed away after a life of more than fourscore years spent, to the latest moment, in active, kindly usefulness.

Theodore Metcalf came to Boston in 1837, bringing with him a thorough knowledge of the drug business and a high ideal of its future. In his quiet, unassuming way, by his example and influence he gradually brought about a realization of that ideal; and to him, perhaps, more than to any other, is due the credit for the advancement in pharmacy, the beneficial effects of which are felt and acknowledged in the community to-day. During all this time Mr. Metcalf has held in a marked degree the respect and esteem of all who knew him, not only those of his own profession, but the entire community as well.

It is pleasant for us to remember his high character, his integrity of purpose, his ripe judgment, his extraordinary ability in every duty to which he was called. We extend to his friends, for he carried into every word and act a genial, generous nature, a manly courtesy and a sympathetic, loving heart. He was in the truest and best sense a Christian gentleman, and his memory will be ever held sweet and precious by every member of this association. May his life be to us a perpetual benediction.

"We see him as he moved,
How modest, kindly, all-accomplished,
With what sublime repression of himself,
And in what limits, and how tenderly."

His extent to the family our sincere sympathy in a bereavement which is ours as well as theirs.

The funeral services, which were held in St. Mary's Church of the Assumption, Brookline, on the morning of April 30, were of an impressive nature. Schmitt's Requiem Mass was sung by the full choir, assisted by Miss Ella McLaughlin, soprano; Miss Carrie Reid, contralto; Samuel Tuckerman, tenor, and Lon F. Brine, bass. The organist was J. Frank Donahoe, of the Cathedral of the Holy Cross. The services were conducted by the Rev. L. J. Morris as celebrant, the Rev. John Lyons as deacon, and the Rev. Walter Butler as sub-deacon. The floral display was very simple, the principal tributes being bunches of callas and white roses tied with satin ribbon. Upon the coffin was a wreath of calyx leaves and roses and a cross of roses and ferns. After the services the body was taken to Forest Hills for burial in the family lot.

The pallbearers were F. A. Davidson, George F. Brown, Edwin W. Shedd, M. F. Lyons, Frank C. Montgomery and Albert H. Luker. Many prominent business men attended the services. The Boston Druggists' Association was represented by Joseph Burnett, J. S. Badger, Hon. Gorham D. Gilman, J. C. Lowd, Fred Carter, A. G. Weeks of the Weeks & Potter Co., E. S. Kelly, W. C. Durkee, Waldo Cutler and Thomas Dolber. Others present were Patrick Donahoe, publisher of the Pilot, Hon. G. S. Hale, Hon. P. J. Flattery, T. G. Garzan, Fred Mills, Gordon Dexter, Henry Canning, Dr. Haskell Brown, Causten Brown, J. F. Solner and J. B. Hand.

Druggist Creclutus, of Louisville, had a pile of insect powder in his window. It caught fire from a lamp. Policemen overpowered by the flames. Blaze put out by stream from soda fountain.

NEWS COMMENT.

Wm. A. Greenwall, a prominent pharmacist of Anoka, Minn., is dead.

The negroes charged with killing Druggist Eyster, of Indianapolis, are undergoing a second trial.

A woman sued Druggist Geo. A. Fullerton, of Marion, Ia., for \$4,000 damages for selling liquor to her husband. The jury awarded her \$500.

The Sagar Drug Company, the new wholesale drug house at Duluth, Minn., formally opened its establishment the evening of April 19.

The druggists of Springfield, Mo., rightly object to the work of itinerant nostrum venders, and have made it decidedly interesting for some of that ilk.

Sharpers in Newark, N. J., visit the druggist, make a trifling purchase, and while the druggist is counting out change for a large bill a confederate sneaks in and steals everything in sight. Druggist Linnett lost \$73 in this way.

A clerk with McJure, Walker & Gibson, Albany, N. Y., on April 21 dropped and broke a large bottle of ammonia. He was immediately overcome by the vapor, and it was only by the greatest efforts of the physicians that his life was saved.

The drug store of E. C. Andrew, Montgomery, Ala., was the scene of a terrible duel to the death, April 22, between two prominent young professional men. After shooting each other full of holes, one of the contestants crawled over to his adversary and brutally beat the latter's head. A local paper says of this blood-thirsty individual that "He was as bright as he was brave and honorable."

W. D. Tallman, Syracuse, N. Y., has sold his store at West and Gifford streets to J. W. Wade, and with a partner, C. M. Schultze, has opened a magnificent store at 348 South Salina street. The manufacture of a full line of physicians' supplies, such as tablets, etc., will be made a specialty. The store is very large and splendidly equipped, tile floor, steel ceiling, quartered-oak fixtures, self-warm from Whitall, Tatam & Co., a \$3,000 fountain from Tufts.

One of the latest chemical discoveries is a method for the artificial production of petroleum. The process is simple and effective. It is the distillation of animal fats and oils at a temperature of 300 to 400 degrees Centigrade at a pressure of 25 atmospheres in a strong iron vessel. About 70 per cent. of the fatty matter is transformed into petroleum, this being 90 per cent. of the theoretical yield. The discovery is not of any commercial importance up to date, as the artificial product costs a great deal more than the natural.

An interesting decision is that in the case of T. E. Regan, administrator for Francis R. Murphy, who recovered \$10,850 from Cook County, Illinois, on a contested bill of goods sold and delivered, Murphy did business under the name of the Chicago Pharmaceutical Company, and supplied the county hospital with drugs and supplies. The County Board rescinded its contract after the goods were delivered on the ground of fraudulent auditing of bills. The court held that fraud had not been shown. Murphy was county druggist at the time and audited his own bills.

The Chicago Inter Ocean relates that a druggist, Edward M. Castle, in Dresden,

NEW YORK.

New York, May 10.—How did you like the "Moving Day Number" of The Era? I suppose it is useless to ask that question, however, for in going around among the trade since the first of this month I have not found a person but who took pains to commend the excellence of that issue of this journal. Not only the typographical appearance, which was certainly striking enough to call forth praise from those who are considered judges in such matters, but the entire paper, end to end, was called "excellent." It was to deserve such praise that the publisher of The Era and his staff worked with more than the usual vigor for some weeks. To move a journal like The Era from Detroit to New York was no small job in itself, but at the same time to get out such a number took all the energy and most of the time of every person employed on this paper. The first Era that bore the New York date must be made so good that the trade should not forget it for months and years to come—May 1, 1894—and when in the future some new man in the drug line asks a friend when The Era came to New York, the answer ought to come promptly—"May 1, 1894." However, it must not be thought that The Era proposes to live for even a single minute on the reputation of a past issue. The field for that sort of thing is already occupied. It is all very well, if you like it, to take a paper from force of habit. But little good does one get except from a wide-awake journal, one you buy because you know if you do not you will lose something, and that is just the sort of a paper men say The Era is. However, in regard to the "Moving Day Number" some apology is due for a few mistakes which ought to be pardoned under the circumstances. The generous welcome extended by the New York trade is an assurance that whatever fault can be found will be lightly touched upon, and, as in the past, The Era will strive to please all its friends and to be impartial in its distribution of favors. There is one other point that must be emphasized. The experience of Mr. Lewis Hopp among the members of the drug trade of this city was a very pleasant one, and The Era echoes his words: "It pays an out-of-town druggist to visit New York at least once a year if he makes a tour of the trade." As in the case of Mr. Hopp, The Era will do all it can to see that any visitors are shown just what they want to see, that they are directed promptly to houses that are best to trade with, and a cordial invitation is extended to the trade generally to call at The Era office and make it their headquarters while in this city. The advantage of this is obvious.

All members of the Society of Chemical Industry of London in this country, as well as the drug trade generally, will be interested in the proposed formation of a local section of that association in this city. There are in this country at present 25 members of the English society and about seventy live in New York and its vicinity. About two weeks ago a meeting of the members living in and near this city was called to consider the scheme. There was a satisfactory attendance, and after discussing the subject for a time the chair

appointed a committee to consider by-laws and to see what was necessary in order to form the local section. The second meeting was held on May 9, and it was decided to petition the council of the home society for permission to form the New York section. The necessity for a further general meeting was apparent, so one has been called for Tuesday, May 15, at the College of Pharmacy Building, 209 East 23d street. The meeting will be called to order at 8.15 p. m., and signatures to the petition will be asked for. It is hoped that the home society will see its way clear to grant the desired permission.

It will be remembered that The Era sent a representative to Albany while the Legislature was threatening to pass certain bills affecting the drug trade, and by going direct to the heads of the committees which had the bills in charge found the trade had no cause to worry over the measures. This information was printed in The Era, the chairmen of the committees giving information that the bills were to be killed. The Era's statements consequently about the bill to compel the analysis of patent medicines and the bill increasing the tax for a certain kind of druggist's license were correct, and were given to the trade within a few days of their introduction of the measures. The Legislature did not pass either of the bills, just as The Era said it would not, and they died in committee. If the Legislature did nothing to help the trade, at least it did nothing to hurt it, and that is worth giving thanks for.

Happening to drop into the office of Fairchild Bros. & Foster, on Fulton street, the other day, just about lunch time, I was surprised to find that the firm supplies the young women working there with a lunch, put up at the Fulton Club. The linen, silver and china are all furnished by the firm, and when the eatables are brought over from the club the table is already spread, and very inviting it looks, too. The young women are thus enabled to enjoy the noonday meal without the bother of putting on wraps and going out into some crowded restaurant. They can take their time, have good, wholesome food, and enjoy their chats without inconvenience. Some thirty young women are thus benefited, and it does not cost them a cent. It would appear to an outsider that this is a very good thing for both the firm and the young women. While the firm has to pay the bills, it knows that the employees appreciate the kindness, and that its workers are apt to be in better health because of this arrangement. I am inclined to think that if other firms would imitate the example of Fairchild Bros. & Foster they would find real satisfaction.

The troubles of Mr. and Mrs. C. Williams Meinecke have been aired a great deal of late, and have furnished the daily press with quite a supply of stories. Mr. Meinecke is the head of the firm of Meinecke & Co. of 255 Greenwich street, and his wife alleged that he deserted her. At any rate, just as public interest in the case was subsiding Mrs. Meinecke tried to commit suicide, failed, sued for divorce, and has not yet secured it. Mr. Meinecke's story is entirely different from



W. H. MADISON.

On the third page of the special cover of the May 1st Era was presented a group portrait of the Faculty of the New York College of Pharmacy. By some unaccountable mistake the portrait of another gentleman appeared instead of that of W. H. Madison, instructor in pharmacy. We rectify this error, so far as possible, by presenting above a good portrait of Mr. Madison, a brief biographical sketch of whom is also given on page 571 of The Era for Dec. 15, 1893.

Yates County, N. Y., is offering, in the name of the International University, the honorary degree of doctor of divinity (with net diploma) for \$5. The Rev. David Swing received one of these appeals and turned it over to the newspaper.

Among the stockholders of the recently organized Citizens' National Bank at Appleton, Wis., we find the following: C. S. Little, J. H. Kamps, W. F. Montgomery, druggists at Appleton; Geo. Bauman, druggist at Oshkosh; Otto Kuehmsted, representing Greene & Button, Milwaukee; W. F. Pfueger, representing Lord, Owen & Co., Chicago. Paid-up capital, \$150,000.

F. M. HALLORAN.

We are informed of the death of F. M. Halloran of Frankfort, Ky., one of the best known druggists in Central Kentucky and a most active member of the State Pharmaceutical Association. His death was caused by an inflammation of the brain, which in turn resulted from a prolonged and violent inflammation of the ear, but he had been confined to his bed only two days before his death, which occurred on April 29. Mr. Halloran was 34 years of age. He came to Frankfort from Paducah eleven years ago to enter business with S. B. Holmes, and at the time of his death was junior member of the firm. He was also chairman of the Legislative Committee of the State Association, and to him is due the major portion of the credit for securing the existing pharmacy law. One of his associates, in speaking of his qualities, says: "No more generally beloved or more deservedly popular member of the profession could have been selected by the grim Reaper."

his wife's, but he has pursued the policy of keeping his mouth shut, and only answers his wife's charges through his lawyers.

Prof. Charles F. Chandler has the sympathy of a host of friends over the death of his wife, which occurred on the 6th of this month. Mrs. Chandler had been ill with heart failure for about two weeks. She was the daughter of the late James H. Craig of Schenectady, and a descendant of Major-Gen. Robert Sedgwick, one of the colonial settlers of Massachusetts. She was also a lineal descendant of Anneke Jans, whose heirs have laid claim unsuccessfully to much of the property owned by Trinity Church. Mrs. Chandler leaves one child, a daughter, who is the wife of Charles Ernest Pellow, a nephew of the late John Jay. Mrs. Chandler was active in charitable work, and was a director of the Home for Incurables. She was at one time one of the managers of the Nursery and Child's Hospital.

The relationship to the late John Jay mentioned also recalls the fact that the Schieffelin family is connected with that of the famous legal light, and very closely, too, Dr. W. J. Schieffelin being a grandson. Another death read with regret by the drug trade was that of Abram J. Hardenbergh, the father of Abram Hardenbergh of the drug firm of Hardenbergh & Angus, which occurred in Port Jervis last week.

The committee of arrangements and entertainment of the N. W. D. A. is hard at work perfecting plans for the coming meeting of the association in this city. The meeting is to be held early in October, and, as one of the committee said the other day, the members can be sure that a fine programme will be arranged for the amusement and edification of all.

Zipp's pharmacy in Brooklyn has moved up Sumner avenue a block.

Frank E. Wicks of Detroit was in town for a few days a week or so ago.

W. L. Schaaf has bought out the store of Barry & James, 798 Eighth avenue.

Emil Utard of the New York branch of Ed. Flinaud has returned from California.

J. W. Riehl of Astoria is going to open another store in the same place next week. "Business is not so bad as some people try to make out," said a druggist yesterday.

M. Tschirner of the Olympic Drug Store of St. Louis was seen on Fulton street a few days ago.

Albert Shiels is now the proprietor of the drug store at the corner of Broadway and 12th street.

Druggist Larklin has opened a store at the corner of Sumner and Putnam avenues, Brooklyn.

The office of the College of Pharmacy is now at the new building, Secretary Griffin being in charge.

Carl Erkens, formerly with Wheeler & Guck, is now with T. E. Fraser at the corner of Second avenue and 54th street.

It is a pleasure to meet H. W. Atwood on the street again. He was sick for a long time, but that smile of his is still there.

Thomas P. Kelly, class of '93, Brooklyn College of Pharmacy, is about to sever

his connection with T. Fleet Speer of Brooklyn.

E. M. Patterson of Grunow & Patterson of Detroit was a caller at The Era office a few days ago. He called for Scotland the same day.

Some of the drug trade men who patronize her restaurant on William street, will miss "Katie" when she gives up her place and goes to Europe.

Edwin H. Knox has bought out the interest of his partner in the drug store at Mount Vernon. Mr. Knox was a member of the class of 1893, N. Y. C. P.

Fire in the store of Rudolph Burkhardt at 1056 Greene avenue, Brooklyn, caused a loss to stock and fixtures of about \$2,000. The cause of the fire is not known.

Peter R. Lance, of W. R. Warner & Co., has gone out on the road again. This is his regular Southern and Western trip, and he is not expected back for six months.

Among the other passengers on the Teutonic were Edward Evans, Jr., and Mr. Carlton of Carlton & Klissam. What a good time they must have had with Brent Good and John Cox.

J. N. Hegeman & Co.'s 59th street store will, it is expected, be opened about the 15th of this month. Mr. Moderwell, who was in charge of that store, is now taking a short vacation.

Theodore Welcker of Merck & Co. sailed for Europe on the Augusta Victoria on May 3. He will be abroad for about three months, and will visit Darmstadt and other cities.

F. B. Lippincott of Trenton and John J. Flynn of Mount Holly, N. J., have recently put in fountains furnished by the Low Art Tile Company, through Howell & Sangston, the New York agents.

There are eight graduates of colleges of pharmacy employed at the Hudnut store in the Herald building. Six of the number are from the Philadelphia College and the others from the New York Institution.

Permission has been granted to the Martin Kalbfleisch's Sons Co. to change its name to the Martin Kalbfleisch Chemical Co. The change was made through an order of Justice Beach of the Supreme Court.

Rush Smith of the Philadelphia house of Hance Bros. & White has been in temporary charge of the New York office of the firm for a short time, while Manager McDougal was absent, attending the funeral of a relative.

The friends of E. M. Estey have been congratulating him on his election as president of the Commercial Travellers of America. Mr. Estey is a representative of a large drug house and makes his headquarters in this city.

"I hear that the ——— Company expects, and really seems likely, too, to clear a million in profits this year," was the casual remark of a drug trade man to the writer on Thursday. And he named the company. Can you guess what concern it is?

Everybody is pleased to see that Fassett & Messaros are making such a success of their store, the Lenox Pharmacy, at the corner of 132d street and Lenox avenue. The pharmacy will soon be the one store of the vicinity. If things keep

on. The "Messaros" of the firm is a lady, by the way.

In a chat with The Era man to-day a salesman for a druggists' sundries house said: "I know that the World's Fair did a great deal toward educating the people of the West up to the fact that cheap goods are the worst to buy. It has been the general custom for Western people to call for the cheaper lines of goods, but I now see a change."

Lawyer John Eichler, who was sent to the penitentiary in January last for eighteen months for blackmailing Druggist Otto Doepfner of 337 Third avenue, has been pardoned by Gov. Flower. Doepfner, who had been accused by a client of Eichler, alleged that the lawyer threatened him with criminal prosecution unless he made a money settlement of the case.

L. N. Dronberger, representing Thurston & Braidich, drug importers, is now in the city. He is the personification of good humor, and is always a very welcome visitor among his numerous New York friends. Mr. Dronberger is one of the most accomplished mimics known to the trade, and his German dialect stories are gems, appealing strongly to the risibilities of the most phlegmatic.

H. M. O'Neill, formerly in business on Hudson street in this city, has bought the Crescent drug store in Newark. This store was in the hands of a receiver. When the Crescent Co. went under, it was found that it had thirteen safes in its office, enough, one would think, to hold not only all its money but most of its goods. The Crescent store was what may be called a "dandy," but it was too expensive.

The corporation doing business under the name of Alexander Hudnut has taken a ten years' lease of the store adjoining the Mall and Express building, on Broadway. The premises are now being thoroughly refitted, and soon another Hudnut store will adorn the big thoroughfare. Mr. Hudnut's stores are nothing if not elegant. George Bancroft is the manager of the corporation and the active partner.

George J. Seabury has had a very enjoyable time down South and has reduced its weight some also. He was in Washington at the height of the Coxy rumpus, and, it was whispered, was called upon to organize a committee of thirty to rid the city of the tramps. Such may not have been the case, but if it was not the people of Washington neglected a good opportunity. Mr. Seabury would have had the city cleaned out in 24 hours.

Five months seem a pretty long time to keep a man on the road in one State. S. D. Wadham, of W. R. Warner & Co., has just come in from such a trip and reports business as very good throughout this State, which is his territory. Mr. Wadham is known to the trade in about every little place in New York as well as in all the large cities. He covers the field thoroughly and finds it pays not to neglect even the smallest hamlet.

The laboratory of W. H. Schieffelin & Co. has been removed from Front street to 458 East 144th street, but it will not be there for long. In five months it is expected that the new laboratory of the firm on 132d street will be ready for occupancy, and then this temporary place will

be given up. The new laboratory will, of course, be fitted up with all the latest improvements, and Dr. W. J. Schieffelin is giving the matter his personal attention.

That Red Cross bill is dead. Johnson & Johnson filed their protest with the proper committee at Washington, the brief being drawn by Roland Cox, the well-known trade-mark lawyer. The protest set forth the absolute unconstitutionality of the proposed measure and showed that full protection is given to the society by common law. The Red Cross Society has withdrawn the measure, and so it is, as was said, dead. Outside of the firm most interested one could hear condemnations of the bill, and everybody is glad that right won at Washington for once, anyhow.

The E. M. Johnson Co. has moved from 33 to 14 Platt street, and will occupy the entire second floor of that building. Speaking of moving, there were fewer changes on the 1st of May this year than for many years past. R. W. Phair & Co., agents for Zimmer's cocaine and for the chemicals of Hoffman & Schoetensack, have moved from Pine street to 14 Platt street. J. L. Hopkins & Co., who were at 14 Platt, are now at No. 12 of the same street, where they occupy the entire building. One well posted man in the trade said that he had heard of no changes in firm names.

Col. Samuel J. Tilden is well known all over the country as the head of a big pharmaceutical house, but he is also very well known in New York and its vicinity as a lover of fine horses. His stables at New Lebanon, N. Y., are not only his pride, but are famous throughout New York State, where good judges of horse-flesh abound. The Colonel's stables were destroyed completely by a fire on the night of April 21. Although some of the stock was saved six blooded horses were burned, including the thoroughbreds Sim and Hindoo mare. All of his wagons, saddles and harnesses were also lost.

W. G. Moffitt's Astor House drug store is now beginning to look as the proprietor wishes. It has been completely changed in appearance, and very much for the better. Mr. Moffitt had the plans for the renovation all ready when the fire turned things upside down early in January. Since then the refitting has progressed with all possible haste, and in a week or two will be completed. The woodwork alone, Mr. Moffitt says, cost \$3,000, and the fountain as much. The proprietor was for thirteen years a clerk with the former owner of the store, and is consequently well known to all the patrons of the place.

Richard D. Young, Jr., son of the Fifth avenue perfumer, was tried and acquitted of the charge of stealing an overcoat from his father. The case came up in the Court of General Sessions last week, and after hearing all the evidence Judge Cowing directed the jury to acquit the young man. Mr. Young, Sr., testified during the trial that he made the charge so that the son could be sent to some institution where his bad habits could be cured. The young man is addicted to the morphine habit, and the father has been unable to cure him. The officer who arrested the defendant said that at the time he found opium in his pockets.

There were some smiling countenances to be seen in drug trade circles on the morning of May 8. The final changes in the drug schedule of the tariff bill, published that morning, were the cause. Opium, it appears, will continue free, and I was told by one interested person that the price is likely to drop. Just here it may be said that one could not detect any smiles on the faces of those gentlemen who were said to have been engaged in working up a corner in opium. There was some justification over the fact that borax had been put back to the old rate and that ultramarine blue would continue at 3 per cent. specific duty.

Society as well as the drug trade was well represented at the White Star line pier on the second day of May, when Brent Good of the Carter Medicine Company and John W. Cox of the Antikamnia Company went aboard the Teutonic, bound for a little continental trip. Among the many friends of the tourists were noticed John M. Peters, Thomas P. Cook, Joseph A. Toy, Mr. Kissam, Harry Good, Miss Good, and, of course, a number of relatives. There were also many ladies there who seemed quite broken-hearted over the departure of somebody they knew, but whether our drug trade friends were the objects of this attention or not, my informant declined to say. Messrs. Good and Cox will stay abroad about six weeks and while having a good time will, it is understood, devote a little time to business.

The winner of the tournament of the Wholesale Drug Trade Bowling Association turned out to be the team from the office of Parke, Davis & Co. The Dodge & Olcott team was second. The victorious team will receive a prize of the value of \$25, and the second one valued at \$15. There were also three individual prizes, for the highest average, highest individual score and for the bowler who received the highest number of spares. These were won respectively by Messrs. Jenkins of Parke, Davis & Co. Rudman of Dodge & Olcott and Mariager of Parke, Davis & Co. The last meeting of the association was adjourned, subject to the call of the Chair, and it is not known at present when the next meeting will be held. It will come when the committee which has the matter of getting up a circular to the trade in reference to next season's tournament is ready to report.

COLLEGE OF PHARMACY COMMENCEMENT.

Carnegie Hall was filled from topmost gallery to the doors on the evening of Wednesday, April 25, by the relatives and friends of the graduates of the New York College of Pharmacy. It was the annual commencement of the college, and in honor of "the boys" the building was ablaze with light, redolent with the perfume of flowers and filled with the strains of sweet music. There was nothing lacking to make the occasion linger pleasantly in the memory of those most interested in the exercises of the evening.

During the gathering of the faculty of the college on the platform the Seventh Regiment Band played "Joan of Arc," "Pictures of the North and South" and national airs. Then the graduating class,

125 in number, marched in from the corridor, keeping step to the taps on a drum by a little drummer boy. H. W. Atwood of the Board of Trustees led the march of the graduates to the platform, where they found their seats behind a row of flowers that extended from one side of the proscenium arch to the other.

The exercises were opened by prayer, the Rev. Joseph Merlin Hodson making the offering. President Samuel W. Fairchild followed with a brief address, in which he called attention to the new college building, its thorough equipment as a modern school of pharmacy, and the steady progress in the work of the institution.

Secretary J. Niven Hegeman read the roll of graduates, and President Fairchild, on behalf of the Board of Trustees and by the power invested by the authority of the State, conferred the degree of Graduate of Pharmacy on the members of the class.

The address of the evening was delivered by the Rev. Dr. J. W. Brown, rector of St. Thomas'. He referred to the faculty being composed of comparatively young men, which was a sure indication that this institution was destined to an even greater future prosperity. He spoke of the acquirements of accuracy, the necessity of fidelity to study and sincerity of purpose, and reminded the class that some of the most wonderful discoveries were made by pharmacists.

Professor C. F. Chandler read the "roll of honor." To have been one of the 123 was an honor, he said, but to be one of the thirteen honor men was a thing for them to be proud of the remainder of their lives, and he trusted that they might always lead in any enterprise with which they might be connected. The honor roll consisted of the following, who, out of a possible 500 points, received the annexed number: W. A. Bastedo, 577; E. Jordan, 547; B. Culp, 543; F. C. A. Schaefer, 542; J. R. Wood, 540; H. Kreuder, 538; J. H. Wurthmann, 531; R. W. Schaul, 526; O. Neubert, 524; C. L. Richter, 523; B. F. Williams, 518; F. J. Hills, 507.

The special prizes of \$100 each were given to J. R. Wood, in operative pharmacy; F. C. A. Schaefer, in practical pharmacy, and E. Jordan, in pharmacognosy and materia medica. The alumni prizes were awarded by Herman Graeser, president of the Alumni Association, who made a brief speech, saying in part:

"The Alumni Association feeling that it had an unselfish duty to perform in assisting its alma mater to raise the general standard of excellence required, decided to lend its assistance in such a manner that the increased amount of study required of a student in order to reach that standard would be felt by him to be more of a pleasure than a duty or hardship. Therefore it was decided to give what are generally known as the Alumni prizes. Competition for these prizes has been one of the factors in urging every student to put forth his best efforts to attain the all desired end of superior excellence, to reach that point in college fame where he can stand and wave his bunting to the breeze, having dived all competitors, and cry 'Excelsior!'

"There are three prizes to be awarded—a gold medal to the student attaining the highest general average, a silver medal to his closest competitor, and a bronze medal to the student ranking third. The total number of marks attainable were 60, of which Mr. W. Arthur Bastedo received 57, or 95.16 per cent.; Mr. Ernest Jordan received 54, or 91.16 per cent.; Mr. Brevard Culp received 53, or 90.60 per cent. It gives me great pleasure in behalf of the Alumni Association, to present to you these medals for general excellence. It is the highest honor our association bestows."

The list of graduates is as follows: Gustav Abbehusen, Gustav H. Ankersen, Harry C. Annes, Max A. Auerbach, W. A. Bastedo, Mark De W. Benjamin, Jas. W. Bingham, William Boehme, Henry G. Born, August W. Brater, August H. Bresloff, George F. Burger, John D. Case, Oscar B. Chapman, William L. Clarke, Wm. H. Clinton, Jr., Samuel Cohn, Tunis F. Cook, Moses Cowen, Harry W. Crooks, Bevard Culp, Thomas N. Davies, Albert E. Davis, B. Edgar Dawson, Frederick W. Drenckhahn, Frank E. Eely, Peter J. Ehrigott, Philip Eichler, Sarah S. Emory, Ludwig C. Erb, J. Stewart Faulkner, Meyer Frankel, Isadore Fried, John G. Foratz, George C. Frolich, Leo W. Geisler, Jr., Wm. Gerard, Conrad Glogau, Charles O. Grube, George Hall, Frank J. Herbig, Hieronimus A. Herold, Franklin G. Hillis, Frederick P. Hiltz, Harootin K. Hiantian, George E. Holland, Albert Horne, John P. Hutchison, Emil Imhof, Henry P. Johnson, George L. Johnson, Ernest Jordan, Moses Katz, James Kaveny, Cornelius D. Kay, John J. Kealy, Frank J. Keller, John Ketterle, Jr., H. J. Kirchner, Nelson S. Kirk, William Kirkpatrick, Walter Koennemann, Paul Koretzki, Henry Kruder, Felix Krumbholz, Joseph Kussy, Peter F. Lally, Jacob J. Lauffer, Frederic T. Lewis, Frederic W. Linnig, Ernest K. Loveland, William O. Luttmann, F. Wesley McCullough, Julius Mackiewicz, Louis Marcus, Frank W. Maring, Otto C. Marx, Carl A. Meisner, Charles Miller, Anthony H. Molina, Samuel Morris, Charles F. J. Muhl, Barnard Muller, Joseph T. Munk, Robert R. Murison, Eugene W. Myers, Otto Neubert, John Novarine, George F. Phelps, Frank N. Pond, Charles B. Prior, Clarence W. Race, Carl L. Richter, Chas. H. Roberts, Abram Robinson, Oscar J. Ruzicka, George R. Sagar, Mortimer W. Sargent, Ferdinand N. Sauer, Frederic C. A. Schaefer, Emil A. T. Schlichting, Louis W. Schulze, Ralph W. Shaul, Peter Siegrist, Charles R. Seimann, George W. Simrell, James J. Skelly, Frank S. Smith, Edwin G. Stiebeling, Frederick Stock, Charles H. A. Stoerzer, Frank H. Struck, Gray B. Sullivan, Harry Terhune, George S. Tomlinson, Robert M. Ullrich, Charles L. Van Nuis, Oscar I. Van Tassel, Louis E. Wade, Alfred H. T. Walker, Abraham Weiss, Frank L. Wilcox, John P. Wilcox, Benjamin F. Williams, Charles T. Wolf, Joseph R. Wood, J. Henry Wurthmann, William C. Youngs.

The class of '94, N. Y. C. P., held its final reunion and banquet at Clark's on West 23d street. The faculty enjoyed the dinner with "the boys," and the affair was certainly well managed and very pleasant. President Ehrigott acted as

toastmaster and made an address of welcome. Frank J. Keller responded to the toast "Our History," Fred P. Hiltz to "Our Alma Mater," Nelson S. Kirk to "Our Faculty," Joseph R. Wood to "Our Future" and Joseph Kussey gave the valedictory. Other speeches were made by Drs. Elliott, Rusby and Coblentz, Instructors Oehler and Mattson, President Graeger of the Alumni Association, Henry Kraemer, editor of the Alumni Journal, and several members of the class.

The Alumni Association of the New York College of Pharmacy will have its annual outing on Wednesday, June 20, at Peteler's Hotel, New Dorp, Staten Island. These outings are made very enjoyable occasions, and the committee having the matter in charge will see that this year's outing is even better than that of last year, if such a thing is possible.

HONORED PRESIDENT FAIRCHILD.

The gathering of congenial spirits around the dinner table is always a pleasant occasion. How much more so is it when friends who thus break bread together assemble to honor one of their number who is deserving of every whit of admiration and respect that is showered upon him. Such a gathering was that in the red room at Delmonico's on Thursday evening, May 10. The recipient of the honors of the evening was the president of the New York College of Pharmacy, a modest, hard-working gentleman, to whom not only are many young pharmacists of the present day indebted, but whom thousands who are to join the ranks of that profession will have cause to thank.

Notwithstanding the large membership of the New York College of Pharmacy, the number of working members is comparatively small, as is usual in institutions of the kind; but what the active members lack in numbers they make up in zeal. A few years ago Mr. Samuel W. Fairchild, a comparatively new member, was elected to the presidency of the college. He at once joined hands with the old band of workers and directed his energies to the upbuilding of the institution. The excellence of the instruction offered attracted so many students that the capacity of the building then occupied by the college was taxed to its utmost, and a project was formed to erect a building specially adapted to meet the requirements of a practical school of pharmacy. Into this project Mr. Fairchild threw himself with his accustomed zeal, and to-day the new college building is so far completed that the office of the college was transferred to it at the beginning of the present month. The completion of the new building furnished an occasion which was gladly seized by the officers and active members of the college to pay a tribute of their regard to Mr. Fairchild in recognition of the great amount of time and labor he had given to college affairs, and an invitation was extended to him to meet a company at dinner at Delmonico's on the evening mentioned.

The invitation card sent to President Fairchild is a handsome one, executed in

perfect good taste. It consists of twelve pages, bound in red morocco, silver scroll work points, gilded, protecting and sheathing the outer corners of the front cover. The inside of the cover is watered silk. The third page bears the illuminated title:

SAMUEL W. FAIRCHILD,
Kingsbridge, N. Y.

The letters are in red and blue on a background of gilt. Surrounding the inscription and filling the length and breadth of the page is a well-executed framework in colors. The fifth page is also printed in colors, and reads as follows:

"Samuel W. Fairchild.

"Dear Sir: As officers and members of the College of Pharmacy of the City of New York, we desire to show our appreciation of your devotion to the interests of the college, and of your uniform courtesy to those with whom you have been associated in conducting its affairs, by inviting you to meet us at a dinner to be given in your honor at Delmonico's on Thursday, May 10, at seven o'clock. If the date and hour suit your convenience, trusting you will favor us by accepting our invitation."

Following come the signatures of the officers and members as follows: George Massey, first vice-president; John R. Caswell, second vice-president; Horatio N. Fraser, treasurer; J. Niven Hegeman, secretary; Herman W. Atwood, T. J. Macmahan, Charles Rice, Charles Holzhauser, W. M. Massey, Henry Schmid, S. J. Bendiner, Theodore Louls, T. F. Main, Domingo Peraza, Reuben R. Smith, Clarence O. Bigelow, John McKesson, B. T. Fairchild, George William Kemp, Alfred Henry Mason, John M. Peters, Adolph Tacheppé. On the eleventh page is mounted the menu card.

Mr. William M. Massey presided at the dinner. He was chairman of the committee of arrangements, and his good taste was amply shown in all the little details that make such an affair enjoyable. There was a wealth of flowers in the banquet room, a really wonderful display, and as for the dinner, nothing need be said. It was served as only Delmonico can, and was as choice a collection of good things as the most exacting could demand.

The toast of the evening, of course, was that to the health and happiness of President Fairchild. The honored guest responded in a feeling manner. Then followed remarks by everybody in turn. The talk was about the work of the college in the past and the good work it is hoped it will do in the future, now that such a home and such facilities are offered in the new building. Every one present was imbued with the feeling that the college had not only done great good, but is to do greater and better things in the future. Letters were read from many members who were unable to be present, but who wanted to show that they were there in spirit at least, and that they too honored and respected the president of the college.

BOSTON.

Boston, May 10.—This is the season of the year when the Druggists of Massachusetts cities are all anxiety in regard to the securing of a license. In many places the question has aroused considerable discussion, and Selectmen and Aldermen have had a hard time in settling affairs in a satisfactory manner.

Twenty-five of the Cambridge druggists have received licenses, and several applications are on file, as the committee are not quite satisfied with the reports from the patrolmen, who seem to figure as witnesses in these cases more than any other individuals. It is expected that the few who are on "probation" will be reported upon favorably at the next meeting.

For several weeks before granting licenses to the druggists of Brookline, the Committee on Licenses, on the part of the Selectmen, had the matter under consideration. At a special hearing before the Board of Selectmen the five druggists appeared with their books, and every sale was scrutinized by the officials. The opponents to the granting of licenses were represented by Rev. Luther Beecher, who said, among other things, that at the appraisal of goods of a Brookline apothecary, recently deceased, \$2,000 worth of the \$4,000 worth of goods found in stock was wines and liquors. He knew the Brookline people were sincere in their petition that no licenses be granted to drug stores. Notwithstanding the protest, licenses were granted to W. H. Butler, D. F. Baxter, A. J. Hayman and Young & Brown.

There are a great many druggists in Lynn, some of whom have been engaged in the business for many years, and have always been privileged to sell liquors for medicinal purposes, without interference. This year the drug store that has any liquor on sale will have it confiscated in the name of the law. A great deal of the accumulations of stock will be stored until next year, when, it is thought, after a year's experience, the sixth-class license will not be conspicuously absent in the annual distribution. The Board of Aldermen has positively declined all applications, and every petitioner for a license has been given leave to withdraw. This in a city of 65,000 to 70,000 people. The Committee on Licenses recommended unanimously that no licenses be granted, and the Board of Aldermen accepted the report unanimously, and adopted the recommendation without a show of debate. Boston is the nearest place in which a prescription calling for spirituous liquors can be filled.

Six druggists in Woburn have been granted licenses, but the Mayor of that city has not yet signed the documents. One of the reasons given for this action on the part of the city's Executive is that his wishes in the case of two applications were ignored. The Mayor declines to be interviewed on the subject. The saloon keepers, to the number of thirteen, were also granted licenses, but these have not yet been signed by the Mayor.

Not a druggist in Malden had his license renewed at the meeting of the Board of Aldermen this week, and for the first time in many years no sales of liquor could be legally made in this city at any

one of the apothecaries. There are eight applications on file. The earliest date at which licenses can be granted is May 15. Since the druggists of the city petitioned for licenses a hearing has been held, at which the petitioners were represented by counsel. One of the druggists had his petition indorsed by the signature of every physician in Malden. The opposition to the granting of licenses in this city was most intense.

Every druggist in the town of Watertown received a license at the last meeting of the Board of Selectmen. There was no public opposition to the granting of licenses of the sixth class, but there was not a little in private. The number of druggists in this place has increased two since last year.

When the present members of the Somerville Board of Aldermen were running for office last year they were all interviewed on the license question. Seven of the eight expressed themselves in favor of granting licenses, while the eighth man declined to commit himself. At this writing no druggist in the city has a license, and it will be at least another week before they will know whether they have been favored by the committee or not. It is reported that a majority of the board is in favor of granting one druggist in each ward a license. There are four wards in Somerville. In Union Square, where there are six drug stores in close proximity, the feeling against such an arrangement is rather strong. It is expected that there will be a lively session of the board when the license matter comes up for settlement.

Three licenses of the sixth class have been issued in the town of Dedham—Henry L. Wardle, William Hurley and Harry Smith being the fortunate ones. The Selectmen have given orders to the police to report any infringement of the law. This duty will not call for a display of vigilance, as all the druggists are old residents of the town and men of character and reputation.

It was claimed by the objectors to the granting of licenses in the city of Waltham that the thirsty citizens were last year supplied by the two druggists, who held the sixth-class licenses. It was further claimed that the two apothecaries "laid up" about \$10,000 as the result of their season's work. This year there are sixteen license holders who will sell under the provisions of the sixth class, and nine who will have licenses of the other class, so that the business will be somewhat divided up. Only one druggist of those who petitioned has been refused so far. A temporary injunction was placed upon the license commissioners of this city in April, on the claim that the commission had been legislated out of office when the new city charter was adopted last January, but Chief Justice Field decided that the commissioners had power to hold office.

There were two reports on the matter of granting sixth-class licenses submitted to the Everett Board of Aldermen by the Committee on Licenses. One report favored giving all the druggists a license, while the other recommended that no licenses be granted. One of the Aldermen is on record as saying in open session that in his ward every apothecary store

is a liquor saloon. He did not believe any druggist had a right to sell a man a pint of rum any more than had a liquor dealer. One paid \$1 for the privilege, while the other paid \$1,300. When the question came to vote, the board refused to grant licenses by a vote of four to two. Last year no liquor could be purchased in Everett.

Not a drop of liquor can be obtained in Marblehead, even on a physician's prescription, the Selectmen having positively refused to grant licenses of the sixth class this year. The four druggists in the town presented petitions all well indorsed. At a public hearing the protest against the granting of licenses came in the form of a great gathering of the people, headed by one of the local divines and the president of the Women's Christian Temperance Union. Of the five Selectmen who voted on the question one is on record as voting for license, as in his opinion there should be at least one place in the town where liquor for medicine could be obtained.

After a week of suspense the druggists of the city of Newton to the number of twenty received licenses. There was a great opposition to this class of liquor licenses, and the feeling found voice at a hearing, held a week before, when the City Council decided to act on the question. A number of secret meetings were also held behind the closed doors of the Mayor's office, and all the patrolmen whose beats passed an apothecary store had to give sworn evidence before the Committee on Licenses and the Board of Aldermen. At the last meeting of the board in April it looked as if the whole twenty-eight of the applicants would have leave to withdraw, but at the first meeting in May twenty of the druggists were favorably reported on and their petitions granted.

Much indignation has been expressed by the citizens of Hingham that after the town had voted "no" on the license question the Selectmen had granted three licenses to the three druggists. The town has appropriated the sum of \$1,000 for the enforcement of the law and to prosecute illegal sales. There is a Committee of Five that has the disposal of the money and a special officer has been employed.

Last year the Selectmen of Beverly refused all applicants for licenses in that town, but this year they have voted to grant to all who apply. The clergy and nearly all the physicians asked that druggists have licenses granted them, and that the penalty for a violation of the law be a forfeiture of the license. There was a great deal of inconvenience experienced last year, which the people of Beverly did not care to have repeated.

Owing to some flaw in the applications of the druggists of Uxbridge, the Selectmen gave the applicants leave to withdraw, but also gave them permission to apply again. There are three druggists in this village. The nearest licensed town is Millville, about five miles distant.

At this writing the Selectmen of the town of South Framingham have granted but two licenses of the sixth class, and it is probable that the other five applicants will not get theirs.

Last year's experience in Pittsfield is not to be repeated this year, and the

Selectmen, instead of granting one license of the sixth class, have issued two. There were twelve applicants for druggists' licenses, and considerable pressure was brought to bear on the board to have all treated alike, but this was refused, and a compromise was made on two. The one license system of last year was not only unpopular and severely condemned, but was found to be a hardship.

Not a druggist in the city of Fitchburg will have a license, the Aldermen having voted unanimously not to grant liquor licenses to any one. There were sixteen applicants, all of whom were endorsed. The Committee on Licenses stood five to one in favor, and the Board of Aldermen accepted the report without debate.

In the town of Greenfield the druggists, who have been licensed, are obliged to make weekly reports of their liquor sales, with the list of buyers, amount received, and the quantity sold. The town officials are resolved that no illegal sales shall be made, and will probably employ spotters during the year.

All the druggists of Taunton have been granted licenses. But it took an all-night session of the Board of Aldermen to settle the matter. Besides the licenses of the sixth class, about twenty-six saloon and innholder licenses have been issued.

Five applications for licenses have been received by the selectmen of the town of Amesbury. They have been taken under advisement.

No licenses will be granted in the town of Foxboro. This is the decision of the board, after holding a hearing and getting the public opinion.

Methods adopted in advertising some medicines in Massachusetts received adverse criticism at the State House the other day. It was in connection with the bill to prevent the offensive use of buildings for advertising purposes. Mr. Bliss of West Springfield claimed that the flaring patent medicine advertisements on buildings and fences are a positive injury to property which the State has a right to regulate. The majority of the House did not seem to agree with him, for the bill was rejected.

For some time there has been gossip in political circles in regard to the successor of United States Appraiser Lewis P. Lodge, whose removal is anticipated. One of the aspirants is Andrew H. Ward, who was recently reinstated in his former position of drug examiner, from which he was removed when President Harrison came into power, but his chances are not considered good. In fact, a recent dispatch from Washington says that Dr. Ward will be fortunate if he retains his position as Examiner of Drugs, as there is indignation in the Treasury Department over his alleged attempted interference with the Appraiser's Office. There were many who were of the opinion that ex-Appraiser Stearns of Holyoke would get the position, as it was understood that he was removed simply on account of his politics. As the story goes, Drug Examiner Ward says that Mr. Stearns is not the man for the place, and he has filed charges against him, which have been transmitted to Washington.

One has to go back several years to find the beginning of the trouble between these two candidates for this position. In the

former Administration, when Mr. Stearns was Appraiser and Dr. Ward Drug Examiner, a dispute arose between them over customs matters, and involved a great amount of correspondence with the Washington officials. It is said that at the end Mr. Stearns informed the Treasury Department that he would not be held responsible for examinations made by Mr. Ward, as he considered him incompetent. It was estimated that the Government had lost about \$20,000 in duties from what was declared to be incompetency in the drug department.

A movement has been recently started in this city which might, in a way, have a slight effect upon some druggists in diminishing their receipts from a side line of trade. This is the Anti-Cigarette League, which has been organized in New York, and which the School Committee of the city wishes to see imitated in Boston. A few days ago a meeting of the teachers of the city was called, the invitation being of such a nature that most of the teachers considered it expedient to be present, and then, before the 700 men and women who were present, the aims of the league were expounded. There does not seem to have been any marked interest in the movement inspired by the meeting, and if there are any druggists in Boston who sell cigarettes to school children it seems probable that their trade will be continued without any interruption from the organization of the league.

C. H. Lee of Jamaica Plain has invented an ingenious bottle, which should diminish the number of deaths from accidental poisoning. It is made of blue glass, so that its contents may not be affected by the light, and is moulded into the shape of a skull, with the cross-bones beneath, while the word "poison" is placed in raised letters on the forehead, and at the base of the skull a space is left for the red label to tell the nature of the drug contained in the bottle.

It is interesting the way in which Mr. Lee, who is no druggist or doctor, but a jobber in boots and shoes, had his attention turned to the invention of this bottle. The invalid daughter of C. H. Bowker of Birch beer fame, while groping in the dark for her medicine one night got hold of a solution of carbonic acid and drank it by mistake. The effect was frightful and almost fatal, and it set Mr. Lee to thinking of a means to prevent the repetition of such a thing. The result was the skull bottle. He says of it: "The only criticism offered by the drug trade is that it might frighten some sensitive persons. That is exactly what I want to do. It is better to be frightened than to be killed. The bottle is being used by several of the largest dealers in the trade, and I believe that eventually it will come into general use."

Another bottle item, out one of a different nature, deals with the enforcement of an act passed by the Legislature in 1883 for the protection of owners of cans, bottles, siphons and fountains used in the sale of milk, cream, soda water, mineral and aerated waters, ale, beer, ginger ale and other beverages. The first seizure made under this act occurred in Charlestown on April 21 by the detective of the Manufacturers and Bottlers' Association of Massachusetts, who, armed with five

search warrants, found and recovered 250 registered bottles from William T. Patten, bottler, 556 Main street. The penalty is a fine of not less than 50 cents each bottle and imprisonment for each subsequent offense.

Jason D. Russell, druggist, at Nashua, N. H., offers his creditors 25 per cent. Silas Clark's dwelling and drug store at Townsend, Vt., were destroyed by fire on the afternoon of April 26.

There was a serious fire in Burke's Block, Marlboro, on April 26. T. B. Morse, druggist, sustained a loss of \$3,000; insured.

P. J. Noyes of Lancaster, N. H., denies the report that he is to sell the P. J. Noyes Manufacturing Chemical Works to Parké, Davis & Co., of Detroit, Mich., for removal to that city.

Meal, Boyden & Co., dealers in druggists' sundries, formerly at 176 Devonshire street, have gone into insolvency. They make to their creditors a composition offer of 12½ per cent.

A patent dated April 16 has been granted to Macksey, Helmer and Barton, assignors to the American Soda Fountain Co., for an automatic machine for combining carbonic acid gas with liquids.

F. A. Barker of Gloucester, Mass., whose fire store opposite the Postoffice in that city was recently destroyed by fire, has purchased the E. A. Price store. He was in the city the other day to buy a soda fountain.

Samuel Sawyer committed suicide by taking chloral at the Dexter House, Nashua, N. H., on April 23. For several years he had been employed in Harriman's drug store at Lynn, but he had given up his position there saying that he was going to his old home at Nashua.

An automatic fire alarm prevented a serious fire in the establishment of George C. Godwin & Co., 36 and 33 Hanover street, the night of April 22. Defective electric wires ignited the woodwork in the basement, but the alarm was so promptly given that the flames had not done a damage of \$50 when the firemen arrived.

A three days' session of the State Board of Registration in pharmacy was held in this city beginning May 1, when forty applicants were examined. At the conclusion certificates were granted to the following named: Arthur H. Taylor, Lynn; James E. Fitzler, Lynn; Taylor L. Mills, Boston, and Leon E. Leavitt, Boston.

The following named druggists have either put in new Tuft's soda apparatus or have changed their old for new: H. D. Humphrey, Canaan, Conn.; Edward Whalen, Webster, Mass.; H. Fisher & Son, John E. Ryan, and C. M. Penfield, Bridgeport, Conn.; J. J. Hogan, Birmingham, Conn.; J. J. Nugent, and Curren Brothers, Holyoke, Mass.; M. Mack, Springfield, Mass.; W. H. Boardman, and E. J. Kelly & Co., Londale, R. I.; Hurley Brothers, Stafford Springs, Conn.; E. Thompson & Son, Milbury, Mass.; T. McCaughey, River Point, R. I.; P. Preusser, Westport, Conn.; M. O'Neill, Chicopee Falls, Mass.; H. C. Moynihan & Co., Southbridge, Mass., and Edward W. Bidwell, Unlonville, Conn. These sales were all made by that efficient salesman, J. O. Wild of Holyoke, Mass., who was formerly in the drug business in that city.

PHILADELPHIA.

Philadelphia, May 10.—This is a great soda town. Last year there were in various sections of the city soda water clubs formed. It is understood that the craze this year is greater than ever, and from now on the Summer young man will be expected to treat nightly. The syrup manufacturers are kept busy getting out new flavors. You can get not only fresh fruit, but some of the manufacturers are utilizing flowers. A prominent down-town druggist advertises fresh pressed violets.

For some time there has been a movement on foot to have the receiving stations of the postal service so situated as to afford the most convenience. With this object in view, Postmaster-General Bissell has appointed A. Edward Wendel, the manufacturer of the well known Swiss lozenges, superintendent of the receiving postal station No. 7, at Third and George streets, and John E. Slaughter, superintendent of receiving station No. 13, at Sixth street and Germantown avenue.

Preparations are being made on a large scale for the meeting of the Medical Association in this city, May 15, 16 and 17.

Wm. R. Warner of the firm of Warner & Co. is at present in Europe, where he has been in attendance at the International Medical Congress, held in Rome. While he was in Rome he did as the Romans do—that is, he visited the Pope, besides meeting the King and Queen of Italy, Premier Crispi, Dr. Virchow and other eminent men. The Medical Congress was attended by over 8,000 people, half of whom were doctors. At a reception given by Sir Courtney Charles to the English physicians Wm. R. Warner and Dr. Bradfield of Philadelphia were the only Americans invited, and they wondered why this distinction. At the reception Lady Charles set their minds at rest by saying, "My husband traveled in America some years ago, and he was so kindly treated everywhere, and especially in Philadelphia, that I was determined to do what I could for your people in return. Since your arrival I have had two couriers out scouring Rome for several days to find out for me all of your people that were here."

John D. Park & Sons Co. of Cincinnati have brought suit against the wholesale druggists of that place, also George B. Bowers, Secretary of the Proprietary Committee of the N. W. D. A., to restrain them from, as the firm claims, interfering with their business. What the outcome will be remains to be seen.

The Committee on Proprietary Goods of the N. W. D. A. has issued a supplement to the pamphlet issued by it in 1890, entitled "National Anti-Trust Law Cannot Affect the Contract System." The paper is prepared by Henry La Barre Jayne, the committee's counsel. It cites a number of cases, all having a bearing on the subject.

The druggists of this city have organized the Medicus Bicycle Club. Doctors can become members as well as druggists, but the latter profession is in the majority. The president is James Buckman, who held a similar position with the

Apothecaries' Union; vice-president, W. Nelson Stem; secretary, Rush P. Marshall, of Sixteenth and Race streets; treasurer, Dr. Paul Judd Sartain. The club numbers upward of fifty, and several runs have been made.

The Philadelphia College of Pharmacy, in its annual announcement, about to be issued, will call attention to the fact that the three-year plan has been adopted, and, all those who matriculate after Oct. 15, 1894, will be obliged to take three terms, covering periods from October to April, in three respective years. This makes the college a three-year institution, a decided innovation for a school of pharmacy in the United States. Professors, alumni and members of the college are heartily in favor of the three-year course, and feel that it cannot help but be of material benefit to students.

An eminent scientist whose name is almost a household word with well-informed pharmacists, is on his way from Germany to visit America—Prof. F. A. Fluckiger. He is being accompanied by Dr. Edward R. Squibb of Brooklyn, and will be honored by scientific men wherever he goes. The professor is now a resident of Berne, Switzerland, where he has lived since his retirement from the University of Strassburg. A reception will be tendered him at the college when he visits this city.

The drug store at the southeast corner of Eighth street and Fairmount avenue has been fitted up with new fixtures, etc. Edmund Desmond, class of 1894, has opened a store at Laramie, Wyo. He writes that his store is one of the best equipped in that State.

E. H. Pahey, who has established a good business at 13th and Race, has purchased the store at 10th and Green, recently conducted by Henry Fredericks.

Dr. Schenck, who has had a spell of bad luck for some time in connection with the sickness of his two boys, is in better spirits now, as they are rapidly improving.

Spontaneous combustion of chemicals was responsible for a slight fire in Rosengarten & Sons' laboratory at Seventeenth and Fitzwater streets, recently, but the loss was small.

W. H. Needles, class of 1845 of the College of Pharmacy, died at his home in Germantown on April 17. Mr. Needles was one of the old-time druggists, and he was widely known in this city.

F. P. Rutherford has just had his store at Thirty-second and Powelton avenue fitted up in a gorgeous style, beside making a number of alterations which include the enlargement of the store. It is now one of the finest west of the Schuylkill River.

Henry Isaac Meyers, 26 years, died at Lanark, Pa., on April 20. Mr. Meyers was a member of the last senior class of the college, but owing to illness he had to go home before the examination. While he was in this city he was engaged at W. H. Gano's drugstore, 17th street and Columbia avenue.

Prof. Bastin is leading his band of botanists over green hills and into smiling valleys in this vicinity to become acquainted with its flora. Two excursions

have been made recently, and many interesting specimens of indigenous plants, some in flower, have been brought home for careful analysis.

Prof. Remington is at Longport on the New Jersey coast, where he has a cozy cottage. He is at work on the forthcoming new edition of his "Pharmacy." Prof. Trimble is also engaged in literary labor on his work on tannins, spending his time in his suburban home at St. Davids, near this city.

Frank E. Engeman has just purchased for J. V. Slaughter the drugstore at Sixth street and Germantown avenue. This store was formerly operated by Dr. E. Elsworth Wilson. He then bought for Dr. Wilson the store at 11th and Berks streets, which was conducted by A. S. Besore and owned by J. V. Slaughter. The store at Sixth street and Germantown avenue is to be run under the firm name of Slaughter & Besore.

Queen & Co. have recently made some considerable improvements in the Le Chatelier Pyrometer for the measurement of very high temperatures. These consist in the application of a new form of D'Arsonval Galvanometer, in which recently very great improvements have been made. A considerable part of the work formerly done at Queen & Co.'s laboratory at Ardmore, Pa., is now being performed at the Philadelphia factory. The increase of business in New York and vicinity has rendered necessary the establishment of a branch office in New York, which is now located at 116 Fulton street.

For the past week those interested in the study of botany have had a splendid opportunity to inspect the Martindale Herbarium recently presented to the college by the Smith, Kline and French Company and Howard B. French. An opening reception was held in the evening, which was attended by many men and women, who have contributed largely to the knowledge of the flora of many states. The guests were received by the members of the faculty, in the library and museum rooms of the institution. The handsome specimens were artistically arranged about the apartments so that a close inspection might be made. The display of ferns was one of the features of the exhibit.

The annual meeting of the Trade Association of Philadelphia Druggists was held on April 9. There were only three members present, including the secretary, Evan T. Ellis, and as the association is bound by no laws that require a quorum for the transaction of business, these three managed to get through with the routine work incidental to the annual meeting and the election of officers.

The secretary said that he was satisfied that all the old officers would accept a reelection, and the following were then unanimously elected: President Mahlon Kratz; Vice President, David Jamison; Secretary, Evan T. Ellis; Treasurer, William B. Thompson. Some discussion then followed over the next meeting, and as the attendance has been so slight at the regular monthly meetings it was decided to discontinue these and meet only at the call of the chair. It is probable that a meeting will not be held until some time in November next.

DETROIT.

Detroit, May 10.—The Pure Food Exposition, which opened at the Auditorium April 30, was of some interest to druggists from the fact that a few drug exhibits were made. Stevens & Todd, local retailers, had a nicely fitted up booth, wherein was a display principally of articles used at their soda fountains. The McK. & R. fruit juices, fruit pulp made expressly for their trade, extract of vanilla from Mexican beans, orange elder (free samples), distilled water by a new and perfected method, and free samples of several specialties made an instructive as well as attractive display. The Andrews Soap Co. of Cincinnati made a large show of Dairy Maid Complexion Soap, and samples were freely but discriminatingly distributed by J. C. Lillibridge, in charge. The local drug jobbers were represented by one firm.

Mr. H. J. Milburn has recently returned from a business trip to Kentucky.

The annual meeting of the Detroit Pharmaceutical Society will occur June 6. Nelson, Baker & Co. have about completed the two-story addition to their large plant.

E. F. Botum, the Southern Michigan representative of F. F. Ingram & Co., was in the city last week.

Dr. Beal, proprietor of the Union Drug Store, corner of Benton and Resard streets, has returned from his wedding trip.

B. Van Dembergh of Alma has recently enlarged his drug store by adding a line of groceries. He lately suffered a severe loss by fire.

D. E. Smith & Co. have opened a new store at 73 Grand River avenue. Dr. M. E. Knapp is a partner and has his office in the store.

A number of the Detroit drug houses were represented at the Pure Food Exhibit to be held at the Auditorium, which opened April 28.

Mr. Alex. Watson, who clerked for D. S. Hallock on Fort street for so many years, is suffering from an attack of neuralgia of the heart.

J. C. Moeller, located at the corner of Alfred and Russell streets, has sold out his entire stock and fixtures. The drug store will be run in the future by the late purchaser.

Mr. A. A. Newman, on Baker street, is now dispensing cooling drink from a new Tufts Congress stand. The stand is a very handsome one and is the only one of the kind in the city.

J. G. Hackney is moving his stock to No. 91 Grand River avenue, while his old store is being remodeled. He expects to again occupy his old quarters when the improvements are completed.

Farrand, Williams & Clark are now thoroughly settled in the old location of Farrand, Williams & Co., the store having been entirely remodeled to meet the requirements of their business.

J. C. Lillibridge has recently secured the resident agency for the Andrews Soap Co., of Cincinnati. He is an old traveling man, having represented Stearns & Co. in the Northwest for several years.

The lengthy newspaper ads. for C. H. Mitchell, the grocer druggist, have been very conspicuous by their absence of late. Possibly Mr. M. is not pleased with the recent action of the Detroit druggists.

The free distribution of several thousand bottles of Dr. Munyon's Remedies from the Detroit Journal office a week or two since has created a large demand for the goods, and some of the uptown druggists report quite large sales.

G. T. Kast has opened a new store at the corner of Sixth and Price streets. Mr. Kast learned the business while with W. H. Purdy, and was subsequently in the employ of J. J. Dodds & Co. until the dissolution of that firm.

Mr. O. E. Smith has purchased the stock of Chas. Morland, 719 Grand River avenue, and will continue the business at the same location. Mr. Smith came from Saginaw last Winter where he had been clerking for F. L. Klitenmacher.

The Detroit jobbers report an unusually large sale of tar camphor this season. The quality is very fine and the goods are being used for window displays with great success. E. C. Kinsel states that he sold about 75 pounds in four or five days as a result of his display.

Hurd & Gray have put the finishing touches to the work on their store, corner of Wilcox street and Woodward avenue. The improvements have cost them over \$1,500. The new space which they have added contains an additional stock amounting to over \$2,000.

A wonderful transformation scene has been going on at the old location of T. H. Hinchman & Sons where they burned out last Winter. The store has been entirely rebuilt and remodeled, and the firm expect to be again doing business at the old stand about June 15.

Henry Melchers, the well-known druggist of Saginaw, has been re-elected treasurer of that city. Mr. Melchers' numerous friends showed their appreciation of his former administration by re-electing him with a handsome majority, running him ahead of his ticket.

The Michigan Chemical Company which was lately formed consists of the following gentlemen as stockholders: E. C. Eccleston, of the drug house of T. H. Hinchman & Sons; W. Vhay and E. Vhay, of Dwyer & Vhay. The new firm will do a brokerage business in drugs, oils, etc.

The Committee of Associated Perfumers of this city have held several meetings within the past ten days, and the manufacturing pharmacists have appointed a committee whose efforts will be directed toward preventing legislation which will be detrimental to the industry.

E. B. Garrigues, representing Whitall, Tatum & Co., visited the jobbing trade a few days since. Other visitors to the trade within ten days past were Maulton, for Henry Allen, New York; Roberts, for A. M. Foster & Co., Chicago; Black, for Pfitzer & Co., New York; Griffith, for Herz & Frerichs, St. Louis.

Some time ago an indictment was brought against Williams, Davis, Brooks & Co. for violation of the regulations governing the shipment of acids. It seems bottles of nitric, sulphuric and hydrochloric acids were packed together in a sarsaparilla box and shipped by lake

steamer to a customer. One of the bottles broke and caused a small fire. On trial of the case the firm disclaimed any intent to violate the statutes, and attributed the act to the ignorance of an employee. Judge Swan assessed a fine of \$75 and costs.

The twenty-ninth annual meeting of the Michigan State Medical Society opened at Lansing May 3, with over 200 members present. The society authorized the president to appoint a committee of four to aid in securing from the next Legislature the enactment of a law to regulate the practice of medicine in the State, it being claimed that because of its laws Michigan is now a paradise for quacks and impostors. The following officers for the ensuing year were elected: President, H. O. Walker, Detroit; Vice-Presidents, V. C. Vaughn, Ann Arbor; C. H. White, Reed City; Mina Logue, Adrian; C. W. McKain, Vicksburg; Secretary, C. W. Hiltchcock, Detroit; Treasurer, W. G. Henry, Detroit; Members of Judicial Council, Fleming Carrow, Ann Arbor; Frank Garber, Muskegon; E. L. Shury, Detroit. The next annual meeting will be held at Bay City.

A. S. Rosenfield, on behalf of the Western Chemical Company, has commenced an action to secure an accounting from the Seely Manufacturing Company, claiming the latter has not lived up to its contract with the Western Chemical Company. He recites that the Western Chemical Company was formed by George H. Smith and Justin E. Smith of the Seely Manufacturing Company, and Mr. Rosenfield in January, 1890. The Smiths were to put in \$5,000, in the business and receive half of the profits and share half the loss. Rosenfield was to put in trade marks, formulas, patent rights and things of the kind, and the established trade of the Rosenfield Chemical Company, formerly of New York City, and have a half interest in the business. The two companies were to be separate concerns, although the Seely Company was to sell the manufactures of the Western Chemical Company, being allowed 20 per cent. commission. On the other hand, the Western Chemical Company was to purchase all of the supplies that it could of the Seely Company. Justin E. Smith was to take care of the financial end of the Western Chemical Company, sign checks, pay bills, etc. The Western Company was to allow the Seely Company 10 per cent. above the cost of manufacture. Mr. Rosenfield claims that the Seely Company has not given the Western Chemical Company credit for the profits on the goods the Western company sold through it. Besides the Seely company sold the goods in its own name, therefore the Western Chemical Company did not get the credit that should have come to it, through the excellent quality of the goods. The Seely company also insisted upon purchasing all of the goods used by the Western company in its own name, and the Western Chemical Company was therefore not able to secure a financial credit or standing.

The bill of complaint recites that Justin E. Smith has refused Mr. Rosenfield access to the books, and that he be forced to grant the privilege was one of the things asked for by Mr. Rosenfield.

CHICAGO.



HUGO W. C. MARTIN.

The Chicago College of Pharmacy has experienced a most severe loss in the death of Professor H. W. C. Martin, which occurred Sunday, April 23, after an illness of but a few days, from appendicitis. He was buried at Graceland with imposing Masonic rites on Wednesday, May 2. Professor Martin was born in Fond du Lac, Wis., March 8, 1833. In April, 1870, he came to Chicago and entered the retail drug business in the store of J. C. Huber, and followed this vocation to the time of his death. In 1873 he entered as a student at the Chicago College of Pharmacy, graduating two years later, during the time of his college work being employed by C. M. Weinberger. Then after a few changes he finally, August 13, 1879, secured for himself a store at the corner of State and Harrison streets, which he had ever since occupied, and where he built up a prosperous and remunerative business. Mr. Martin was always actively interested in pharmaceutical affairs, and held positions of prominence and honor in the associations of the trade. During five years of service as secretary of the Illinois Pharmaceutical Association he assisted materially in advancing several measures of great value to druggists and to the public. For five years he was secretary of the local druggists' association. In the College of Pharmacy he had served as vice-president, and for a few years past had been in charge of the department of dispensing pharmacy, in which capacity he proved an efficient and popular instructor. He was married in 1873 to Miss Lena E. Kirchner.

In recognition of their loss and as a slight measure of the esteem in which Professor Martin was held by them and of the depth of their sympathy for his immediate family, the faculty and officers of the Chicago College of Pharmacy passed appropriate resolutions May 4.

J. J. Magee, druggist, South Park, has purchased a large farm.

Kertz & Burdick succeed the late Frederick List at 277 State street.

Arthur M. Peck is now employed by Otto Coltzau, 2173 Archer avenue.

Peter Van Schaack & Sons have issued their new price current for 1894.

Arthur N. Peck is at present engaged with Otto Coltzau, 2173 Archer avenue.

Wood Browning of Indianapolis, Ind., is making a protracted stay in this city.

L. W. Lovet of Oak Park has been in the city making his usual calls.

George McDonald of Kalamazoo, Mich., spent a few days in the city recently.

Martin V. Creagan succeeds W. R. Parker, corner of Madison and Francisco streets.

Arthur Letourneau, manager for E. L. Caron, is the proud papa of a week-old daughter.

One of Feldkamp's stores on the north side was sold a few days since to the highest bidder.

Bodo U'endorf of Humiston, Keelling & Co. has been soliciting the city trade in their behalf.

K. A. Zurawski, Loomis and 48th streets, is about to have his store improved by the grading of the street.

Ashland Avenue Pharmacy is the name of a new store opened at 52d street and Ashland avenue.

E. J. Davis of Aurora, Ill., is in the city, expecting to locate in one of the prominent downtown stores.

Conrad & Co. have opened a pharmacy in the new Kenwood store, corner 4th street and Lake avenue.

L. C. McCabe & Co. are now doing business at the northwest corner of 45th street and Champlain avenue.

Soren Mathison & Co. have consolidated their two stores under the Louisville Pharmacy, 2126 Indiana avenue.

Hart & Welton of 64th street and Grace avenue are offering patent medicines at cut prices in this neighborhood.

W. G. Shaw, South Chicago, has been ill for several weeks. He is not improving as rapidly as his friends would wish.

W. R. Shaw of Commercial avenue, South Chicago, has experienced quite a severe illness, but is fast convalescing.

E. R. Newcome, Morrison, Plummer & Co.'s south side salesman, has been confined to his house on account of illness.

Thomas Burton, salesman for Morrison, Plummer & Co., has been in the city, and has again started on his regular trip.

Silver Pharmacy Co., successor to T. F. Wakefield, corner of State and Oak streets, occupies a very handsome store.

Professor N. Gray Bartlett has temporarily removed his stock to 117 East 22d street during the erection of his new building.

Thomas C. Ballard, with Morrison, Plummer & Co., has changed his residence from the north side to 3216 Jefferson avenue, Hyde Park.

A. B. Charbonnel is succeeded by O. F. Schmidt & Co., 31st street and Cottage Grove avenue. The store will be entirely refitted throughout.

J. T. Scheiderer of Peter Van Schaack & Sons has been awarded the fourth prize by The Era for a number of subscriptions for the present year.

C. L. Lindeman, Wentworth avenue and 31st street, is about to renew the front of his store by replacing the old with plate glass windows.

E. R. Wolfner, formerly located at the southeast corner of Clark and Polk streets, has removed to the opposite side of the former street.

F. C. Dean, formerly of Dean Brothers, San Francisco, passed through Chicago en route to Niles, Mich., where he joins his father in business.

Frank Gallbreth, with Robert Stevenson & Co., has changed his residence from Englewood to Ravenswood, in order to be near railroad facilities.

Hart & Weldow will establish a drug department in the new department store, State and Monroe streets, formerly occupied by Lyon, Healy & Co.

Oscar F. Betting, Van Buren street and Western avenue, is soon to open a new store corner Halsted and Jackson streets. His brother will be in charge.

Harry S. Lester, manager of Forrestville Pharmacy, has given up his position and gone to his parents' home in Salem, Ill., on account of his ill health.

Rhubenstein & Co., proprietors of the Economy Drug Store, 71st and Halsted streets, have just put in a new stock furnished by Morrison, Plummer & Co.

The Colbert Chemical Company is to open a downtown drug store in the old Stock Exchange Building, northeast corner of Dearborn and Monroe streets.

C. E. Baguley, North State street, has stored his stock and fixtures for the present. This move was occasioned by the high rental placed upon the old stand.

Frank A. Howard, proprietor of the pharmacy at the corner of State and 33d streets, was a former representative of the Waukesha Lithia Water Company.

G. G. Shauer, State and 23rd streets, has finished his Spring cleaning, having had his store repaired and freshly painted and a new sidewalk laid around the building.

J. J. Magee, 57th street and Lake avenue, has been taking a little vacation with his folks at Decatur, Ill., and has returned much refreshed and ready for hard work.

K. J. Thompson, 331 Webster avenue, is about to remove to the opposite corner building, where he will occupy a larger store room, with new fixtures and additional stock.

A committee appointed by the Retail Drug Association to investigate the Hayes plan met at the Schiller Building last week and decided to report against its practicability.

Morrison, Plummer & Co. state there is but little change to note in the condition of the drug market. Jobbers are fairly busy, but orders, as a rule, are confined to current wants.

William Dyche of State and Randolph streets certainly deserves great credit in carrying on such an extensive business so successfully. His younger brother is now studying medicine.

George Dunning & Co. have opened a new drug store on 22d street, opposite Dearborn. Mr. Dunning hails from Waterloo, Iowa, and is a Ph. G., '77, Chicago College of Pharmacy.

Dr. Arthur MacNeal, proprietor of the Berwyn Pharmaceutical Company, has been nominated one of the trustees of Cicero School District. Many ladies favored the doctor with their suffrages.

Tom Ballard of Morrison, Plummer & Co. is very proud of his new sundry department, and he has good reason for being proud, as it certainly is one of the finest displays in the West.

W. W. Swearingen, proprietor of the World's Fair Pharmacy, East 63d street, has closed up his business, stored

his stock and fixtures and removed his family from Woodlawn to Englewood.

Kertle & Dougherty, formerly of Zuber & Co., on Wentworth avenue, are about to start in business on the southeast corner of State and 51st street. In a store soon to be vacated by Stone & Co.

Mr Jerman, with Lord, Owen & Co., reports sales of complete drug store outfits to the following gentlemen: F. S. Torball & Co., Blue Island, Ill.; J. W. Clark, Centerville, Iowa; George W. Dixon, Colfax, Iowa.

Mr. Oughton of the Woodlawn Park Pharmacy, 63d and Madison streets, became a benedict on April 12. He married a Miss Shennan, a Chicago lady. They have started on their honeymoon trip South, their first stopping point being Louisville.

Messrs. Trilenens and Wert have purchased the Auditorium Pharmacy. Mr. Trilenens is a Western man, and was formerly manager of Buck & Rayner's store, 132 State street. Mr. Wert has been for many years with Fuller & Fuller Co. Both gentlemen are well known to the wholesale and retail trade.

John Conrad, Jackson and State streets Soren Mathison and the Elkin Drug Company have been having their show windows occupied by members of the "Seven Sutherland Sisters" family, with appropriate advertisements for their hair preparations, to the amusement and attraction of the public.

The baseball team for the coming season of Morrison, Plummer & Co. start in with H. H. Harper, first base; A. M. Daniels, catcher; Len Lange, pitcher; M. P. Jacobs, second base; W. Walsh, short stop; N. Roach, left fielder; William Wall, right fielder; C. B. Smith, centre fielder; H. Obrein, third base. They played a practice game last Saturday and came out on top.

Geo. A. Graves & Co., 35th street and South Park avenue, have been making valuable improvements from time to time in their store, now having a fine double soda apparatus, with a canopy top; plate cigar case, nickel-plate cash register, nicely decorated show windows, with Grecian urns and show jars, etc., the whole making a handsome appearance.

Jacob Hermann, corner Commercial avenue and 92d street, South Chicago, is having the front of his store repaired. Mr. Hermann makes complaint about most physicians in his neighborhood carrying and dispensing their own medicines. The doctors do not stop here, but when prescribing expensive drugs send the patients to the drug store misinformed regarding the probable cost of the prescription. Then there is trouble.

L. G. Flesher of the new firm of Flesher & Vandevender, Lexington, Ill., is in the city putting in a handsome and complete new stock of drugs. Mr. Flesher was formerly engaged in the drug trade at Lexington, but left that place some ten years ago for Nebraska, where he has been engaged as a dispenser of quinine. He returns to his early love. Mr. Flesher is a man of fixed habits. Having purchased goods of Lord, Owen & Co. in the past, he at once sought them out for a renewal of the acquaintance, favoring them with his order.

ST. LOUIS.

St. Louis, May 10.—There is a very material gain in the country demand for drugs, although it is not quite as active as it was last season at this time. Still, all things considered, it is quite satisfactory.

The health of the city this Spring has been exceptionally good, and the result has been felt in less than the ordinary volume of trade among the retail firms.

The St. Louis Drug Clerks' Society held its third annual election of officers Friday night, April 29, at the Mercantile Club, with the following result. S. E. Barber, president; George Waller, Jr., first vice-president; Max J. Schneider, second vice-president; Frank C. Garthoffner, treasurer; Otto F. Mack, secretary. A banquet followed, at which the guests of honor were Mayor Cyrus P. Walbridge, who is president of the Merrell Drug Company; Dr. Frank L. James, William Mittelbach, Booneville, Mo., president of the Missouri State Pharmaceutical Association; Gust J. Meyer of Meyer Bros.' Drug Company; William Graham, secretary and treasurer of the Daugherty-Crouch Drug Company. Letters of regret were received from John C. Park, M. D.; George K. Hopkins of the Hopkins-Weller Drug Company, and F. L. Kuenneke of the Moffitt-West Drug Company.

The following toasts were ably responded to: "The City of St. Louis," Mr. A. C. Meyer; "The Drug Clerk as a Member of the State Pharmaceutical Association," William Mittelbach; "The Pharmaceutical Press," Prof. H. M. Whelpley; "The Doctors and Apothecaries," William Graham; "The St. Louis Drug Clerks' Society," S. E. Barber, the president-elect. Plates were turned at the banquet for forty members.

The Committee of Arrangements were George Waller, Jr., Frank C. Garthoffner and S. E. Barber. The Reception Committee consisted of Charles F. Geiger, Wm. Wehrenbrecht and Alexander Smith.

The commencement exercises of the St. Louis College of Pharmacy were held the night of April 19, at the Memorial Hall, 19th street and Lucas place, in the presence of an audience that completely packed the big hall. During an overture by the orchestra the class of graduates, numbering fifty-three, headed by Prof. J. M. Good, dean of the college faculty, marched into the hall and took seats near the stage, on which were assembled the faculty of the college and members of the Board of Trustees. As the names of the candidates were read they came forward amid hearty applause, and received diplomas. When the name of Miss Martha I. Martin of East Prairie, Mo., was called by the secretary the applause was deafening. She was the only lady member of the graduating class, and is the second woman to be graduated by the college. The following is a list of those who were given diplomas: William A. Ackenhausen, William D. Auferheide, Adolph C. Bernsch, Emmett N. Boulward, Samuel V. Bracy, Henry L. Bramstedt, Charles R. Buren, Joseph H. Carmanns, Ferdinand Christmann, William A. Clark, Emil W. Dandt, William F. Diesbach, Theodore F.

Fienup, Adolph M. Finke, Otto F. Fischer, Rudolph F. Fischer, James H. Flippin, Herman J. H. Fraze, Oliver J. Funsch, H. M. Lee Godfrey, John M. Gray, Emil Grebe, John A. Guttmann, Clifford E. Henry, Pert A. Holloway, Madison C. Hugdick, Henry E. Klostermann, Frederick Koch, Charles W. Kozl, Edward O. Kuntz, William M. Laumann, Walter J. Le Saulnier, William Edward Le Saulnier, Fred William Luytles, Martha J. Martin, Fritz J. Mobbs, Arthur C. Newburger, Martin J. Noll, William Oldendorph, Ferdinand C. Pauley, James W. Peeler, William B. Pilkington, William A. Pinder, Frederick William Runde, Walter G. Schneider, Edward C. Schnttker, Charles W. Stockhausen, Charles D. Tomm, Charles William Tritschler, Emanuel J. Waldeck, Charles Witt, Gustav A. Woehrlin, Hiram W. Young.

The degrees were conferred by President Henry Braun. Dr. Otto A. Wall, professor of materia medica, delivered the valedictory on the part of the faculty, and Clifford E. Henry for the class. Chas. Alpins, president of the Alumni Association, presented the prizes of that association, and the college and faculty prizes were presented by Dr. Gustavus Hinrichs, professor of chemistry. William Mittelbach, president of the State Pharmaceutical Association, delivered the address. The alumni prize, a gold medal, was conferred on Emil Grebe of Freeburg, Ill., for passing the best examination in all branches. Edward O. Kuntz of Cuero, Tex., received the second prize, a handsome silver medal. Ferdinand Christmann of Waterloo, Ill., was awarded the prize offered by the Oldberg-Wall Laboratory for the best examination in pharmacognosy. Samuel V. Bracy of Hope, Ark., earned the prize given by J. M. Good, professor of pharmacy, for the best work in the Pharmaceutical Laboratory. Rudolph F. Fischer and Edward O. Kuntz received equal prizes for proficiency in practical pharmacy. Dr. Gustavus Hinrichs, professor of chemistry, awarded his prize to Walter J. Le Saulnier of Red Bud, Ill.

After the commencement exercises were concluded, the graduates, faculty and speakers of the evening enjoyed a banquet at Faust's.

The April dinner and meeting of the St. Louis Paint, Oil and Drug Club took place on the evening of the 19th. This being the last meeting of the season in which business could be transacted, it had been decided beforehand to devote it to the direct business interests of the club, and, therefore, no guests were invited. Nearly all of the members, however, were represented, and advantage was taken of the opportunity to insure the working of the club machinery in a more harmonious manner than ever. The several committees made satisfactory reports. The May meeting of the club will be held on Thursday evening, the 17th, and will be purely social, but informal. Some good speakers are expected to take part, and if any members of paint, oil and drug clubs in other cities are in St. Louis on that date and can put up with the same diet and treatment that the local members endure, they are cordially invited to attend.

S. S. Merrell has been elected treasurer of the Office Men's Club.

Edward Mallinckrodt, president of the Mallinckrodt Chemical Company, is back from a trip to the East.

H. C. Swift, a former pharmacist of Upper Alton, an Illinois suburb, has been defeated as a candidate for the post-mastership at that place.

Col. John S. Moffitt of the Moffitt-West Drug Company has entirely recovered from his recent sick spell.

Paul A. Day, one of the leading druggists at Sedalia, Mo., has passed safely through a severe attack of tonsillitis.

Mr. David Coons, president of the Provident Chemical Works, has returned from a business trip to southwest California.

Arrangements are being made for the annual convention of the Missouri State Pharmaceutical Association, which will meet at Excelsior Springs on June 12 and continue four days.

Dr. W. I. Palmer's drug store, a one-story frame building on Marshall avenue and Manchester road, was burned on Friday night, April 21, entailing a loss of \$1,000, which is covered by insurance.

At Conway, Mo., a couple of nights ago, the pharmacy of John M. Ragland was burned. The contents were entirely destroyed. The fire is thought to have been the work of an incendiary. Mr. Ragland will not rebuild. He carried only a light insurance.

At Russellville, Ark., on April 30, articles of incorporation were filed by the Weimer Drug Company. The incorporators are W. S. Fraser, W. E. Pruitt, R. U. Drummond and P. H. Earlow. The capital stock is \$150,000, of which \$75,000 has already been subscribed.

A telegram, May 7, from Topeka, Kan., says that the State Board of Health has called a meeting for May 15 to take action to drive out the patent nostrum venders who have overrun the State. There is no law on the statute books to punish them, but the Legislature will be memorialized to pass a law that will exclude them.

Henry Foote, an accountant in the office of Meyer Brothers' Drug Company, shot himself through the head, April 10, at the home of his brother, 440A West Belle place. Unrequited love is supposed to be the cause. He died two days after the shooting. Mr. Wm. Knight of the drug company speaks of Mr. Foote as the most exemplary young man he ever knew. Foote was 28 years old.

The annual election of the officers of the St. Louis College of Pharmacy was held on April 29, at the college, 2108-2110 Lucas avenue, with this result: Mayor Cyrus P. Walbridge, president; E. P. Walsh, vice-president; Solomon Boehm, treasurer; Dr. J. C. Falk, recording secretary; W. K. Ihardt, corresponding secretary; Board of Trustees, Chas. Aietner, H. W. Scheffer and Wm. C. Waldeck.

The pharmacists at Sedalia, Mo., are after Dr. Anselme, who is from St. Louis, and who is selling various kinds of medicines from a wagon on the public square. The drug dealers are indignant, and say that they pay a city license in their business and that outsiders should not be allowed to infringe on trade that belongs to them. The druggists say that the Mayor has no right to issue a permit to itinerant doctors to sell medicines on the public square.

BUFFALO.

Buffalo, May 10.—The event of the month in local drug circles, was the annual commencement of the University of Buffalo, of which the College of Pharmacy is a department. This took place at Music Hall on Tuesday evening, May 1, the great hall, the largest in the city, being crowded. The number of diplomas in the three departments were 61, of which 29 were in medicine, 26 in pharmacy and 6 in dentistry; the latter college being only two years old, and having a three years' course, the class is necessarily small. The change of the medical course to three years also reduces the size of the graduating class, while adding to the efficiency of the college. The pharmacy course remains at two years and is so satisfactory that no material change will be made next year. Chancellor E. C. Sprague was absent on account of illness, and the vice-chancellor, Dr. George S. Hazard, presided in his place.

Twenty-six students received diplomas. Their names are: Theodore V. Bauer, Edward E. Bickford, Emory H. Breckon, Birdsall Briggs, Archie I. Drake, M. D., Walter M. Goff, Edward B. Grove, Fred C. Haile, Arthur Lewis Hatch, George E. Hermann, Louis D. Hilligass, Calvin D. Jefferson, George H. Jones, Robert E. Jones, Hiram A. Kendall, M. D., Claude D. McAhon, Guy L. McCutcheon, John V. Murphy, Charles E. Noble, Earle H. Parker, Orren S. Salisbury, Charles St. John, Ray M. Stanley, Leslie R. Stryker, Edward Volk, Grace E. Wilcox.

Five of the class were also awarded honors for achieving the highest class standing in examination and in scholarship during their senior year. The happy recipients of this distinction are George Hartwell Jones of Randolph, N. Y., Frank Sanda of Cleveland, Ohio, George A. Heiser of Buffalo, Walter M. Goff of Howard, N. Y., and Claude Duval McAhon of Clermont, Pa. Messrs. George A. Heiser and Frank Sanda were among the twelve who were entitled to certificates of complete examinations, but who did not receive diplomas owing to their youth.

The following received certificates of completed examinations in pharmacy:

William G. Beachner, Oscar C. Diehl, Ernest J. Fraine, Orange Green, George A. Heiser, Alfred F. Kuhn, Lorenzo G. Nail, William A. Palmer, Frank Sanda, Henry Schick, Chauncey T. Simonds, Cora M. Smith.

These latter will receive diplomas on arriving at the required age or completing the required three years in a drug store. The college also conferred the honorary degree of graduate in pharmacy upon George Peabody, a retired city druggist who annually gives a prize to the best student in pharmacy. The winner of this prize this year is George H. Jones of Randolph, who took the junior prize last year.

The annual address to the graduates was delivered by Dr. Lucien Howe of this city, who spoke on the causes of failure, and made some wholesome suggestions of an exceedingly practical character.

The Alumni Association of the College of Pharmacy as usual took the day after commencement to itself. The morning session was devoted to election of officers

for the ensuing year and such other business as came before the association.

At the afternoon meeting the graduating class was welcomed by the president, William B. Reed, his address being responded to very ably by the class president, Mr. Guy L. McCutcheon. The papers and general discussion of various topics of interest to the pharmacist, which followed, were received with hearty approval.

The election resulted as follows: President, Fred S. Marsh, '89; First Vice-President, A. S. Felch, '91; Second Vice-President, Miss Grace E. Wilcox, '93; Third Vice-President, John Fuhrmeyer, '89; Secretary, E. J. Sanderson, '93; Treasurer, William H. J. Smith, '91.

The banquet at the Niagara was one of those pleasant affairs which have been a feature of the College of Pharmacy since its establishment. The Alumni Association is joined by the Erie County Pharmaceutical Association and the druggists of the city in general, and the occasion is in this way made a general reunion of the trade. The company that sat down numbered about 125, and was quite as representative as usual. President Anthony of the County Association presided jointly with President W. B. Reed of the Alumni Association.

It is exceedingly gratifying to learn that every member of the graduating class was provided with a position before commencement day, and there are applications on file at the college for more clerks.

For some reason the junior class did not stand the running fire of the examinations very well. Of the fifty examined eleven failed and five were conditioned in one study. The junior prize of \$25 was won by Edward Francis Kenney of Burton, Ohio.

The County Board of Pharmacy examined five candidates for licenses at the first May meeting. The following licenses were granted at that and the second April meeting: Pharmacists—Newell McDonald, Earl H. Parker, George E. Hermann; assistants—Oscar P. Diehl, Samuel R. Woods, Willard T. McElroy, H. C. V. Weichmiller, Charles Kelley, Henry T. Le Fevre.

There seems to be no improvement in the drug trade beyond the slight stir that always accompanies the opening of Spring. Custom is as capricious as a pretty woman. Some days it is fairly rushing and the druggist looks for something permanent, then it drops off again and there is a lull of several days. The scare over the city water is over, so that there is no further rush for mineral water, though doubtless some of that trade will remain permanent. The Health Commissioner has announced that the water has been purified of the evil effects of opening the water works tunnel so near shore as to contaminate it with sewage and all unseasonable.

The filter makers have made a fine thing of it, but it is to be feared that the city doctors have not come to an agreement on the question whether bacteria can be filtered out of water, though, as they seldom agree on anything if they can help it, the case is not an unusual one, and further delay may not be worth anything to science. Of course, there are plenty of people who are ready to say now that the

ware was without foundation and it is nonsense to pretend that the water had anything to do with the fever cases, besides, it gives the city a bad name and keeps people away. These wise ones should join an anti-vaccination society.

The cut-rate drug store that has been threatening the city trade appears not to be materializing. At one time there was a report that a certain big dry goods store was preparing to put in a line of patent medicines, and the County Pharmaceutical Association appointed a committee to labor with the proprietors. The latter were selfish and refused to meet the committee. Then two of the most ready of the committee were sent to the store and found no difficulty in getting an audience. The result was most satisfactory, and, though no positive promises were made, so far as can be learned there is now no fear that the store will go into the drug trade.

Not long ago it was charged that Buffalo was a large city, one of the few in the country with no manufacturing chemists. Whatever may have been true then is not true now. A year and a half ago the Maltbie Chemical Company established itself at 35 Washington street, and is making a large line of goods for the general trade. The Maltbie Brothers came here from Otto, Cattaraugus County, where one kept a drug store, the other being a student of chemistry. It is reported that a new chemical company is about to be established on Washington street.

Some druggists were examining the new excise blanks and noting the improved style of printing the application and the bond on one sheet, folder fashion. They read the solemn warning against selling liquor "in quantities less than five gallons, not to be drunk on the premises," and thought the wording was very happy. "You see, there is no provision against selling over five gallons, to be drunk on the premises," said one.

"But suppose the man who bought all that amount should break down and fail to drink it up?" inquired another.

"Well, in that case the druggist would be liable, of course."

The Collett drug store, which was established a year or two ago on Main street, below Seneca, has been moved to Vermont street.

The County Board of Pharmacy gave one of its bright candidates a bottle of yellowish liquid to make out. He spent considerable time on it, and then was told that it was mentioned on a certain page of the Pharmacopoeia, but he failed even then, and evidently suspected that some game was put up on him.

"Why," said the secretary, "I know a young clerk who can tell a compound made up from any ten bottles on the shelf and tell every ingredient right off-hand." "He is a good one," rejoined the young man, dryly. "They ought to make him a member of the board."

May is the month for re-registration. Every holder of a license must attend to it, or be barred from practice. As there is a fee attached to the registry, the clerks complain of it some, but they are satisfied that the law is a wholesome one and stand it. The County Board, which has this in charge, reports that there is no complaint of violations of the law under consideration now, so the pharmaceutical atmosphere may be set down as serene.

CLEVELAND.

Cleveland, May 8.—Hans A. Frasch, chemist, in the employ of the Grasselli Chemical Company, has recently patented a process of making concentrated nitric acid. Mr. Frasch has patented a number of improved processes and arts. Herman Frasch of the Frasch Process Soda Company has also become a prominent figure in chemical and pharmaceutical circles.

Changes in the retail drug business are going on at a lively rate. Dr. I. J. Kigelhaupt, the Clark avenue druggist, has sold out to Dr. James F. Armstrong; Joseph J. Schantz, 2318 Broadway, has been succeeded by Eugene A. Spenser of P. I. Spenser's pharmacy, 370 Central avenue; Tod Howard, assistant to C. F. Fen-ton, has purchased the pharmacy of Chas. B. Wood, 693 Cedar avenue. Prior to his venture, Wood was an assistant chemist in the employ of Strong, Cobb & Co. There are a number of changes on the tapis, but owing to the dubious aspect of the times deals are slowly consummated.

Lewis C. Hopp's narration of his New York sights and adventures is being read with great gusto, but it will cost Mr. Hopp many a "smile" before he will succeed in reconciling all things, separately and collectively. When George Hechler met him on one of his daily downtown pleasure trips, the following colloquy ensued:

"Lewis, you are a brick; without you we might as well go to sleep. But it took New York to proclaim you as a Cleveland prophet. Bully for The Era! Hurrah for The Era! Lewis, here's a nice place; let's go in and have one on it."

"Thank you, George; I am glad you do not deprecate the compliment The Era paid me in selecting me as the Robinson Crusoe redivivus of the drug trade. I am envied and spiteful things have been said about me. But d— the soreheads, and hurrah for The Era! Fill 'r up again. Now for Cincinnati! Let's all go and be brotherly!"

"And are there any sights in Cincinnati, Lewis?"

"George, you dear, innocent baby; Cincinnati—and no sights? Just save up the extra 100 per cent, you make on cork legs, bandages and the like, and I'll show you anything between 'Over the Rhine' and Mrs. Rooney, the monkey intriguante of the Zoo, when you have tired of the civilized sights 'below the Rhine.'"

Admiring groups of passers-by are hourly seen in front of Meyer & Glem's Cuyahoga Block store, being attracted by the interesting window displays, the freshest and most elaborate in town. Does it pay? The proprietors say so, and I can in part verify their statement; for recently I took the pains to watch that slight-seeing crowd from an opportune point. Of 110 persons attracted to the windows twenty-four entered the store and either priced or bought of the articles exhibited. Later, calling at the store, I ascertained that the sponge trade had been exceptionally brisk all afternoon, and sponges were the main attractions in one of the windows. Some of the downtown stores which pay some attention to window dressing in a modernized sense of the word are Meyer & Glem's City Hall Pharmacy, A. F. May & Co., Gem Pharmacy, Euclid Avenue Phar-

macy, It. Parsons, Son & Co., Mayell Hopp Co., Heller & Gouvy, Julius W. Deutsch, Marshall & Co., Loewe Apothek, Marshall's and Gaylor's. There are others with evident ambition, but they overdo themselves in the attempt. A promiscuous exhibit of all sorts of wares and merchandise is bad taste, and of problematical value only. With all the spare time that clerks have at their disposition now a great deal more ought to be accomplished. To accomplish anything at all, show windows must be reconstructed in the first place. The expense is worth undergoing, for good trade inducements are always connected with expense.

The Stecher pharmacy is one of the best paying on the West Side.

Retailers are kicking at wholesale selling to persons outside the trade at wholesale prices.

S. M. Strong has been chosen a member of the Committee on Municipal Law of the Chamber of Commerce.

Michael Gerstacker, corner Fulton and Lorain streets, is able to be about again. Bright's disease is his complaint.

The soda trade has started in with the usual boom of feminine enthusiasm. There is no hard-time abnegation in front of the soda fountain.

Bangs' local manager says new drug store enterprises are plentiful, despite the hard times, and with every year better and more artistic fixtures come into demand.

Munyon's advertisers and samples are in the city. The newspapers are in clover, and so are the free sample fiends. Munyon, the Wanamaker of the drug trade, is reaping the harvest.

Franz Kelper will probably open a drug store in the near future "on his own hook." Mr. Kelper has many years of Cleveland and Chicago experience, and is a "literary" pharmacist besides.

The new firm of Feuer & Aubley, Case and Payne avenues, are doing well. They understood the characteristics of the neighborhood, their Broadway experience having fully acquainted them with all trying foreignisms.

"I do not expect a live trade in fly paper this season," mused Henry W. Stecher, he well-known "Stick 'em Fast" manufacturer, "and shall not make any special efforts in getting beyond a safe share of trade."

There is a woman forger in town, and she is in the habit of using drug-store telephones in calling up messengers, whom she uses as tools. Some drug clerk may earn a reputation as a sleuth by discovering her identity.

Style is wanted in the most unpretentious country town, and a luxurious array will find quicker takers than sober or primitive designs. The Cleveland Store Fixture Company and other outfitters are of practically the same opinion.

Charles M. Miller of the Malto Manufacturing Company is Spring spry after the trade, and intends to even more popularize the Malto drink this Summer. Mr. Miller is an old pharmacist, having been formerly established at Mansfield, and is very adept in compounding extracts for carbonators.

At the May meeting of the Cleveland Pharmaceutical Association it was decided to attend in a body the meeting of

the Ohio State Pharmaceutical Association, which will be held in Cincinnati on June 5, 6 and 7, as per new arrangement. All non-members will be welcome if they desire to join the party, and notices will be sent out to that effect.

In a recent essay from the pen of a local chemist there appeared this sentence: "Cleveland is the chemist's paradise. "Is that to be taken in an aesthetic or material sense? Anyway, Cleveland has produced some of the best chemists in the country, and the chemical laboratory of the Case School of Applied Science is one of the best in the world.

Already the life-enjoying members of the fraternity are planning Summer amusements. Lewis C. Hopp has given a strong incentive to New York trips, and the probable dull term will decide many to take a protracted outing, far away from the weary cares of up-to-date business, to gather new courage. The Cincinnati excursion in June will start the exodus.

The monopolistic Cigarette Tax bill, which is being urged for final passage, would effectually concentrate the cigarette traffic. It would reduce the dealers in numbers, but manifold their sales. Druggists will probably do the bulk of the retail business at the doubled prices. A large percentage of the trade would no doubt be diverted to neighboring States where cigarettes can be had at the old prices.

The substitute for the Abbott Pharmacy bill, which passed the Senate, provides that an assistant pharmacist of five years' experience, a physician of five years' practice, who for five years has been proprietor or personal manager of a drug store, shall be entitled to be registered as a pharmacist without examination. This was amended by a clause providing that any time spent in study in a school of pharmacy shall count as part of the five years' experience or practice.

Trade in the outer districts is still lacking animation and the perennial dull period is close at hand, too. Pessimists promise even worse times for this Summer than last. They base their prognostications on the continued inactivity and strikes in the iron and cognate industries on which Cleveland's working classes mainly subsist. The business center stores, while noticing the demoralization of the working class trade, are satisfied with what is to be picked up in the general run of business. Economy has become a habit with a great many people, and that counts, too.

The female drug clerk is one of the coming trade problems. She is growing in favor with the profession, and vice versa. Thus she may soon be more than a mere ornament or trade magnet. The matriculation sheets of the pharmaceutical schools in Ohio, and also examination reports, show an increased female percentage with every term, and it is evident that the profession must give the women "encroachers" enough encouragement to practically familiarize them with every detail and make their mission what it should be. Encourage modern woman and her ambition will generally accomplish the rest.

CINCINNATI.

Cincinnati, May 8.—Since the last edition of The Era the Ohio lawmakers have been juggling the Abbott and Stillwell bills. The first named measure was handed without gloves in The Era a short time ago. The measure is fathered by Senator Abbott of Morgan County, whose ideas of the requirements for running a retail pharmacy are, to say the least, very vague. Then again, in the language of the street, it might be that the Senator cares little about pill making and ointment mixing. His pet bill, to allow any one to become a registered pharmacist who has had five years' experience in a drug store, it is said, was framed to please one of his constituents, who had failed to pass an examination before the Ohio Board of Pharmacy. Invidious persons, who claim to know a thing or two about our lawframers at Columbus, have said that the author of this iniquitous bit of legislation might have been influenced in various ways to take the position he has. There hasn't been a bill brought before the Legislature in the past ten years which was characterized with the patent injustice of the measure in question, and the druggists in all parts of the State are justly incensed. Meetings have been held in all of the northern towns and cities, protesting against its passage, but, notwithstanding this, the bill is likely to become a law. When the bill came up in the Senate there was quite a flurry among the members of that august body. It is claimed that votes were traded right and left, and the bill was finally passed by an overwhelming majority. When it was learned in this city that the bill had passed the Senate, a meeting of local druggists was held in the Smith Building, and Mr. John Byrne of Columbus, as a representative of the Ohio Pharmaceutical Association, was present and spoke at length about what would have to be done to prevent the bill passing the House. Mr. Byrne stated in open meeting that \$300 would have prevented the measure coming before the Senate at all, and urged the druggists to start a subscription paper and solicit funds. The idea was taken up and the following gentlemen acted as a committee: John Weyer, Albert Wetterstrom, Charles Fleber, John C. Otis, J. F. Kutchbauch and Louis Klayer. The following day about fifty druggists attended the called meeting at the College of Pharmacy Building, and about \$500 was raised to antagonize the hobby of Senator Abbott. Resolutions were also adopted, requesting the Hamilton County delegation to vote against the measure. Despite the action of the local druggists and their "pill-rolling" brethren throughout the State, when the bill came up in the House it was recommended for passage. It was placed on the calendar, however, and there it is likely to remain for some months.

Apropos of this unjust law, it might be well to publish what some of the leading druggists said about the measure to The Era correspondent:

"The Abbott bill is the work of one man," said Dr. John C. Otis. "Senator Abbott evidently has some friend or relative, who has been unable to pass the examination before the State Board. The bill

provides that after a drug clerk has worked at the business for five years he may be given a license and certificate to practice, without examination. A mere child could see the results of such a law. In a very short time the State would be filled with practicing pharmacists, armed with certificates from the State Board, who would know almost less than nothing about mixing drugs for the public. The bill is an outrage on the people of the State, and is extremely dangerous. The law as it stands is an excellent one, and should be left alone."

Said Mr. Wilmot J. Hall: "Of course, I am against the Abbott bill, for the simple reason that its passage would result seriously to public safety. No one should be allowed to mix drugs for public use who has not passed an examination showing that he is fit to do so."

"Every drug clerk or practicing druggist should be required to pass an examination," said Dr. R. C. Weatherhead. "Mixing drugs is a serious business, and only good men should be allowed to do it out of protection to the public."

The Stillwell bill, which provides that all druggists must pay an annual tax of \$50 for using intoxicating liquors in their business and selling the same, is also pending. The pharmacists are also against the passage of this bill.

John Gray of Richmond, Va., entered the drug store of Henry Gilbert of Lockland the other morning, and, under the pretense of illness, tried to get enough poison to end his miserable existence. Foiled in his first attempt he made repeated pleas for enough laudanum to accomplish the deed. All of his pleading was of no avail. Later in the day it was ascertained that the poor fellow tried the same trick at a drug store in Wyoming, and met with like ill success. Gray claimed to be a coal miner, last employed at Fairmount, W. Va., and driven out of employment by a strike in the coal mines there.

Druggist Ed Gray is on the mend.

The slot machines, like Coxe's army, are on the move.

George Kylius wants to purchase a couple of farms near the city.

Sam Vollman, the ubiquitous sponge vender, was in town last week.

Warm weather has made a boom in the soda water trade in this city.

Fred Kisker, formerly a Fairmount druggist, is clerking for Otis & Co.

Druggist Frank Kautz's two stores were attacked by the Sheriff one day last week.

Harry Gradel is going to open a bang-up drug store out in aristocratic Coryville.

John Keeshan, the veteran pharmacist, is now an adherent of dumb-bell practice.

Edward P. Dehner has been giving his drug store a painting, internally and externally.

Madam Rumor has it that a new pharmacy will be opened in Mount Auburn soon.

Several carboys of nitric acid belonging to the Grasselli Chemical Company exploded recently.

Andy Bain was busy last week appraising two drug stores, which went to the wall because of hard times.

Edward Martin, pharmacist at the National Military Home at Dayton, was in town calling on his friends last week.

Benny Isaacs, the Ohio man for Sharp & Dohme, was mingling with friends here this week, talking pills, tablets and the like.

All the local druggists report business picking up—like the rag business. Eastern drummers are all faring well here now.

Tia rumored that John F. Haynes, formerly of this city, but now with Lehn & Fink at New York, will soon become a benedict.

Joseph Durham, who formerly had charge of Hoover's pharmacy in Central avenue, has just returned from a trip to San Francisco.

John Bauer, at Sycamore and Milton streets, is now the proud possessor of a parrot, and it keeps John busy trying to teach his pet not to talk so much.

Ever since Ed Voss, the druggist at 12th and Vine streets, got married he has remained considerably longer at his meals. We suppose it's the same the world over.

Dr. R. H. Weatherhead has just purchased a large lot of potted plants to use in decorating his store. He has also moved his office to the rear of his store.

Among the candidates for special inspectors of drugs at the Custom House are Joseph Hall, Edward Dehner and R. J. Pardick. The matter will probably be settled next week.

Most of the local drug clerks are now fixing matters so they can get two afternoons off each week during the heated season. The baseball season may account for their actions. Outdoor concerts may also be the cause.

Wilmot J. Hall has "discovered" a new drink, which he is dispensing at his soda fountain, and which he has christened "Ambrosia." Several well-known citizens of this city have partaken of ambrosia and they all say it is all right.

Jason Evans allows himself to go on record as the only prominent downtown druggist who favors the passage of the Abbott bill. Mr. Evans has been quoted as saying that he thought the Ohio Board of Pharmacy had been guilty of showing too much favoritism.

W. L. Elgin for the past five years a traveling salesman in Texas for H. W. Williams & Co., wholesale druggists, was in the city last week. While here Mr. Elgin accepted the State agency for the goods of the William S. Merrell Chemical Company in Texas.

As the People's Theatre closes in two weeks, Druggist Herman, at Thirteenth and Vine streets, is accordingly disconsolate. He has been doing a land office business in grease paints and other stage make-up, and cannot be blamed for the feeling he cherishes.

Lloyd Bros., the wholesale druggists at Court and Plum streets, have received a permit to erect a large four-story laboratory at Mound and Elizabeth streets. The estimated cost of the structure will be \$8,000. Ashley Lloyd, of this firm, is treasurer of the Cincinnati Baseball Club.

The Ohio State Board of Health met in this city on April 27, at the Burnet House. The possibility of an invasion of cholera being the coming summer and quarantine regu-

lations were among the subjects discussed. Dr. Probst made a lengthy address on consumption and the way it should be treated.

Will Wagner, at Weatherhead's got hold of an order for some liniment the other day which looked as though it might have been written by some of the hobos in Coxe's Army. The order called for one ounce each of piperolol, sweet oil, romifex, sperets turpentine and one-half pint of alcohol.

The inquest on William Arons, the book-keeper for the Standard Drug Company, whose body was found in the Clifton Canal basin on March 21, was concluded a few days ago. President Calvert of the Standard Drug Company testified that the last time he saw Arons alive was when the board held a meeting and decided to examine his accounts. This was done, and several stockholders were not satisfied with the way Arons kept his books. The verdict was: "Drowned in the Miami Canal." The death strongly points to suicide.

INDIANAPOLIS.

J. W. Danhour of Clay City is a benedict now.

A. F. Sala & Co. is a new firm at Summitville.

Al Bussell has bought the Archibald store at Laesburg.

Allen & Layton, Covington, are succeeded by Allen & Rice.

James Heffernan of Anderson has charge of Good & Co.'s store at Richmond. Frank Steele of Knightstown has taken unto himself as partner (life) Miss Carrie Hodson of Ogden.

W. L. Dobyns & Co. are successors to Rogers & Dobyns, Greensburg. Mr. Rogers was appointed postmaster.

John E. Wakefield, formerly clerk for J. F. Johnson, this city, is in business for himself at the old Adams store in Sharpsville.

Two young sons of Fred Schaefer of Berne, Ind., ate some cyanide of potassium, which had been purchased to polish brass. Both boys died in a few minutes.

Coleman & Patterson is a new firm of enterprising druggists in West Indianapolis. Lichty & Hall of the same city have dissolved partnership, Mr. Hall retaining the business.

The soda season has opened briskly here. There has been a continual stream of patrons after the unexcelled ice-cream soda which the leading druggists of Indianapolis dispense.

Grover, Hazelrigg & Bonner of Greensburg are putting on metropolitan airs, and have put in a handsome soda fountain, electric fans and other high-toned accompaniments.

A. C. Bates, a pioneer druggist of Rockville, died at the Montezuma sanitarium on the 1st inst. He was in the drug business at his home since 1861 and was well known throughout Western Indiana.

Ben Webb, the traveling salesman for A. Kiefer & Co., who drew a \$75,000 prize from the lottery some months ago, has retired temporarily from active business. At present he is doing the Midwinter Fair.

Both wholesalers and retailers express themselves as satisfied with the state of trade. It compares very favorably, they

say, with the Spring business of years that have had a better reputation for general prosperity.

The city police surgeon found one of the station house lodgers suffering from smallpox. He was isolated on the City Hospital grounds, and the health authorities have ordered everybody in the city and suburbs to be vaccinated, if they have not been within seven years.

The druggists of Elwood have organized a pharmaceutical association for mutual protection and the regulation of prices on many articles, including patent medicines, which have been selling at cut prices. The association will also regulate Sunday closing. All the Elwood druggists are members.

The two Indianapolis fasters, Joe Kinsley and Ashley Fields, did not hold out long at Bourbon. Beginning at 9 o'clock on the morning of the 1st inst., they had neither sleep nor food until the morning of the 7th, when physicians advised Fields to give up and ordered a bowl of mush and milk for him. He had lost thirty pounds and Kinsley twenty-three pounds.

"Billy" Schmidt, who recently retired from the position of manager for A. Kiefer & Co. in order to make the race for County Treasurer on the Republican ticket, went through with a burrah at the convention—and a nomination at a Republican convention is considered an election in this year of our Lord. Mr. Schmidt is a native Hoosier and is a comparatively young man to have risen to the business and political eminence he has. He started in at Kiefer's as errand boy and rose to be a partner and manager.

The commencement exercises of the School of Pharmacy of Purdue University were held on April 10. It was the ninth class and numbered thirty-seven. O. E. Dunn, the class orator, spoke on "Pharmacy, the Student." J. K. Lilly of Indianapolis addressed the class on "The relation of Pharmacy to the Druggist." Dr. H. B. Osborn of Kalamazoo, Mich., on "The Relation of the School of Pharmacy to the Medical Profession," and Col. R. P. Dettart of Lafayette on "The Relation of Pharmacy to the Law." The following is the list of the graduates: C. H. Abersmeyer, Fort Wayne; W. N. Arnett, Fortville; F. R. Bass, Mooresville; H. S. Best, Brookville; Daily Bland, Worthington; F. J. Boatman, Indianapolis; Harvey A. Berkley, South Bend; A. M. Carter, Harrison, Tenn.; George A. Clapsatt, Fort Wayne; George C. Cullom, Frankfort; E. E. Downey, Rochester; O. E. Dunn, Milwaukee, Wis.; F. H. Flangner, New Richmond; Mabel E. Fleming, Princeton; W. H. Fox, Three Rivers, Mich.; O. F. Grahl, Fort Wayne; N. H. Harding, Osgood; L. C. Hinchman, Rushville; H. C. James and William F. Kirkhoff, Lafayette; John H. Kueale, Montmorenci; C. O. Maple, Indianapolis; A. M. Marsh, Sackett's Harbor, N. Y.; Thomas B. Marshall, Butler, Ga.; H. M. Mehlig, Tipton; P. M. Murphy, Whitcomb; G. A. Petersdorf, Knightstown; Conrad Schraeder, Shelbyville; O. W. Stephenson, Livonia; F. A. Stockes, Rockville; G. H. Stoller, Mansfield, Ill.; W. M. Ticen, Colfax; E. C. Tinsley, Indianapolis; Alva I. Ulrich, Three Rivers, Mich.; George W. Haines, Ora C. Kennon and J. D. King.



SETH TALCOTT.

SETH TALCOTT, senior member of the firm of Talcott, Frisbie & Co., Hartford, Ct., on Asylum street, died at his home, on the corner of Asylum avenue and Sigourney street, on the afternoon of April 16 at half-past 1. The cause of death was a general wearing away and debility. Mr. Talcott's condition had been serious for the last few days, and the morning of the day of his death his physician, Dr. Porter, knew that there was no hope for him, and that it was only a question of a few hours. Mr. Talcott had been an invalid for the past three years, during which time he had done no business, but sought to recover his health. He had suffered two strokes, one of which it was thought he would not survive. A particularly sad feature of his death is the absence in Europe of two of his sons, Allen Butler and Edward C. Talcott, and also his partner, Mr. Edward C. Fristie. His son, Charles Hooker, his niece, Alice Bulkley, and Mrs. Talcott constituted the immediate family since the departure of the two sons.

Mr. Talcott was born in West Hartford, at the old family homestead, and was 64 years of age. He commenced his life as a druggist, when a lad of 14, with Harvey Seymour, with whom he stayed until he was 20. At that time he joined his brother, George, who was completing an academic course at Yale College. He remained a year at Yale, and attended many courses of lectures. Returning to Hartford in 1851 he bought out a drug store on Main street, and founded his wholesale drug business, under the firm name of Seth Talcott. A few years later the firm became Talcott & Fuller. This partnership lasted but a short time, when his brother, George Talcott, then a lawyer, bought out Fuller's interest. The firm name became Talcott Brothers. This firm continued business until the Spring of 1871, when Mr. George Talcott died suddenly on his wedding trip, just as the present building, which the firm occupies on Asylum street, was being finished. At Mr. George Talcott's death the firm became Talcott & Co., and continued under that name until 1883, when E. C. Frisbie was admitted, the

name of the firm being changed to Talcott, Frisbie & Co.

Mr. Talcott was twice married, his first wife being a Miss Corning, by whom there was one child, Minnie. She married H. Page Guyton of New York, but died a few years ago. Mr. Talcott's second wife was Sarah Allen of Longmeadow. Three sons were born to them—Allen B. Talcott, the artist; Charles H. Talcott, in his father's store, and Edward C. Talcott, with the Jewell Belting Company. Mr. Talcott leaves a brother, John B., in New Britain, and another brother in the commission business in New York. His brother, George, is dead.

Mr. Talcott was a member and constant attendant of the Asylum Hill Church. Formerly he was a member of the Centre Church. He was cultivated in his tastes, unassuming in his manners and strict in his integrity. His business sagacity is shown in the extent of the wholesale drug business which he built up. With the employees of the store he was nothing if not kind and considerate, and his home life was of the happiest.

TRADE COMMENT.

Hurray! America is exporting sugar of milk. London and Hamburg are inquiring for it.

Dr. C. E. Teel & Co. was incorporated on March 8, at Tacoma, Wash., with capital of \$10,000 for the manufacture of proprietary remedies.

Bichromate of potassium was the poison selected by a servant girl in England to ease her way to the great beyond. But it didn't, for she suffered horrible agony for twelve hours before death.

An enterprising Cuban cigar manufacturer is now putting up his finest goods in hermetically sealed glass tubes, thus preserving the cigars in the same condition in which they leave the factory for an indefinite period.

An Ohio woman answered an advertisement recently, which promised to give a satisfactory recipe for making coffee. The reply was: "Practice until you get it exactly right, then keep on making it that way."

A special exhibition of the bill-poster's art is now in progress at Brussels. A large building has been devoted to the purpose, and even with an admission fee, the enterprise is drawing as large crowds as do the usual art exhibitions.

The 300 or more Chinamen engaged in the opium trade at Victoria, B. C., are said to be considerably alarmed over the prospect of a reduction of the tariff on their manufacture, should the Wilson bill become a law. As large quantities are smuggled into the United States on account of the high duty, a removal of the latter will render the Victoria manufacturers unable to compete with their brethren in Hong Kong.

In the other form of advertising in which the French excel—window display—"their native art faculty also comes into play," says a writer in *Printers' Ink*. "Not that the largest stores are superior to ours in multiplicity and attractiveness of form, but it is the attention paid to window dressing among the smaller shops that makes a walk along a Parisian street a delight. I have often been brought to a standstill before a small hardware or butcher's shop by the eye-catching quality of its window arrangement. We might well copy the methods by which the French insure light and attractiveness to their shops. The whole front is usually of glass, with only the barest skeleton of iron or wood as the necessary framework. Narrow strips of mirror are frequently placed down the window sides, or across the bottom and top, and facing outward so that the passer-by sees himself reflected in them. Mirrors are even used to cover the upper and lower framework of the window. The effect of all this glass is gay and inviting to a degree. At night, artificial lights are used lavishly, and one is continually being tempted to buy things he does not need because they are so attractively brought to his attention. Surely this is the acme of the advertiser's art."

A ten-foot high advertising picture, representing President Carnot and a lady, evidently intended for Mme. Carnot, slipping with gusto a new Algerian brandy, has been posted throughout France. As soon as it appeared the Government ordered that a piece of colored canvas be pasted over the two heads, otherwise the advertisement was allowed to stand. In consequence of the Government's action it has proved a bigger advertisement than was ever anticipated. Profitable Advertising.

The Sugar Drug Company of Duluth, Minn., had a formal opening of their wholesale drug business at their new building, 25 and 27 Fifth avenue, west, on Thursday evening, April 13, to which all their friends were invited. From their excellent geographical position and ample shipping facilities, both by rail and lake, together with their new and commodious quarters, the new firm is justified in asking for a liberal portion of the ever-increasing jobbing business of the Northwest. The management of the various departments of their business is in the hands of men who are fully acquainted with the needs of the retail trade, and among them are Nelson P. Snow, late of McKesson & Robbins, New York; Charles S. England, late of Strong, Cobb & Co., Cleveland, and Professor W. H. Mosher of Buffalo, N. Y., in charge of the firm's laboratory.

A German claims to have discovered a new method of doctoring cigars, and it is thus described in a trade paper: "The invention consists of an almost colorless fluid, with which a portion of the tobacco to be used, especially the wrappers, is moistened. The effect is immediate and lasting. The cigars burn better, and taste and smell are so improved that they satisfy the requirements of an epicure. This was proved, we hear, in the presence of a large number of smokers and experts. The inventor's method of convincing any one is simple and effective. He begs for a cigar of low quality, pours several drops of the fluid on the table or on a plate, turns the cigar around several times in the fluid and offers it to some one to smoke as soon as the outside is dry. The color of the tobacco undergoes no change." What wonderful inventors these Germans are, and what wonderful things they will believe.

Michigan stands second on the list of States in the output and valuation of its mineral waters for the year 1893, being only exceeded by Wisconsin, the latter producing 5,705,212 gallons, valued at \$562,703, and the former 610,500 gallons, valued at \$174,222. Statistics given in a special report of the United States Geological Survey show that the list of waters used commercially during 1893 is the largest on record. The total number of springs was 328, an increase of forty-five over the previous year. The total production was 23,544,495 gallons, at a valuation of \$1,246,734. This is an increase of 1,677,831 gallons, but a decrease of \$639,226 in the value over last year. The average price per gallon was 13 cents, against 22.1 cents for 1892. The list of waters used commercially shows a net gain of twenty-

five in the North Atlantic States, a gain of four and a loss of one in the South Atlantic, a gain of fourteen and a loss of five in the North Central, a gain of three in the South Central and a net gain of five in the Western States and Territories. The decrease in production in this section is 589,412 gallons, and in value, \$286,846.

COOL STORAGE AND COGNAC. The gifts of science to commerce are incalculable, and are ever receiving fresh additions. The latest example is interesting, in its way, because it seems to be the practical first fruits of those elaborate experiments in very low temperatures which Rioulet initiated and Dewar has followed up. It relates to the formation of cognac. Connoisseurs dream with envy of those exquisite fine champagnes for which the industrious fathers of the Grande Chartreuse are famous. The fathers, being men of means, can afford to do what very few firms care to—namely, lock up capital in large quantities of the best eau de vie for ten years at a time. This protracted storage in cool vaults results in the perfect cognac with inimitable bouquet. Inimitable hitherto, Rioulet has, however, tried cooling eau de vie by progressive stages down to a temperature is low as 20 degrees C. At this point the alcohol becomes buttery and semi-crystalline in substance. Upon being restored once more to its normal temperature, the fluid is found to have acquired the bouquet of fine champagne of ten years' growth. The expense is insignificant compared with the result—not more than a quarter or half a franc per litre.

An Italian college of vinology, at Avellino, has submitted samples of home-produced brandy to M. Pictet for test, and the results, published as yet without analysis, are very promising. Our knowledge of alcohol is still imperfect, and the constitution of brandy, according to an expert in *Cosmos*, is very complex, including, besides ethylic alcohol, certain higher alcohols in small quantities, aldehydes, acids (esp. acetic), glycerine, introduced by the hydro-alcoholic vapors during distillation, coloring and aromatic matters, especially vaniline. Possibly it is the accelerated transformation of the aldehydes and acids that produces the peculiar bouquet.—*Pall Mall Gazette*.

RULES FOR A FIRST-CLASS DRUG STORE.

The following rules, contributed by one of The Era's readers, seem to be quite appropriate for the perusal of certain patrons with whom every druggist has more or less acquaintance:

- (1) Hours for solicitation of church subscriptions, etc., from 11 a. m. to 1 p. m. Book agents entertained from 1 p. m. until 3 p. m. Advertising agents recognized at all hours of the day.
- (2) Gentlemen are requested to congregate behind prescription counter and engage in conversation with the clerk while filling prescriptions.
- (3) Persons making social calls should remain as long as possible. Daily papers and magazines furnished upon application to the cashier.
- (4) Gentlemen are requested to arrange themselves comfortably in chairs against

the walls. This will help sustain the walls and may prevent them from falling upon us.

(5) Gentlemen are requested to smoke. Pipes, tobacco and cigarettes furnished.

(6) Expectorate upon the floor. Our cuspidors are intended for ornaments.

(7) Talk loud or whistle, especially when we are filling prescriptions. If such actions do not appear to rattle us, sing.

(8) Profane language expected at all times, especially if ladies are present.

(9) Put your feet upon the desk or lean against prescription desk; it will be of great assistance to persons engaged in writing.

(10) Do not neglect sampling colognes, etc., as manufacturers have placed them with us for that purpose.

(11) On entering the store, make yourself at home. Be sure to help yourself to anything you want. Pay no attention to clerks. They are employed to occupy space only.

(12) Do not wipe your feet before entering the store; it spoils the mat.

CROTALUS HORRIDUS.

There are difficulties enough in the pathway of the ordinary pharmacist, but they are nothing compared with those which he who makes a speciality of homeopathy must encounter if the operations described in a recent number of the Boston Medical and Surgical Journal are very frequent:

"The following description of the initial steps in the securing and preparing of the 'mother tincture of crotalus horridus' receives the sanction of two homeopathic medical journals. A box of twenty-four large rattlesnakes was received by a museum proprietor in Rochester. Having provided a long hempen cord, a bottle of ammonia and some whisky, 'to be prepared for an emergency,' the owner, known as 'Rattlesnake Pete,' unfasted the lid of the box, and, as a large snake darted out, seized it by the neck and carried it to a table, while the long lithe body coiled round his arm and the rattles were 'singing away like grasshoppers.'

"Now comes the interesting part of the performance. A piece of common window glass was placed near the snake's open mouth, and the rattler struck his wicked looking fangs, which were nearly an inch in length, against the glass, a thin stream of yellowish looking liquid spurting upon it at each stroke. 'Oh, he's full of it,' said Pete. 'There's poison enough right there to kill twenty men.' While he spoke he walked toward the den, and giving the snake a twist, released him. The poison on the glass was absorbed with sugar of milk, scraped into a bottle and carefully sealed. The poison thus obtained is sent to certain London homeopathic physicians, who use it in their practice as a medicine for diphtheria and other diseases of a similar nature. The poison is supposed to be very valuable. The process just described was repeated with snake after snake, until all in the box were transferred to the den. After the first three or four were taken out Pete plunged his hand among the mass of wrigglers with seeming impunity, dragging off his next victim with a quick

but certain motion. 'These fellows will give up their poison more readily tomorrow; they are a little sluggish on account of having been kept in such close quarters for the past forty-eight hours,' said Pete in response to the writer's query. 'Besides selling the poison, which I have told you about,' added Pete, "when a snake dies I fry out the fat of the reptile and obtain from one and a half to two ounces of a very penetrating oil from a fair-sized snake. This oil is worth \$ per ounce, and is used as a specific for deafness."

COMPARATIVE STATEMENT OF DRUG EXPORTS AND IMPORTS.

	Month ending March 31.	
	1894.	1893.
Articles free of duty:		
Alizarin and madder.....	\$13,337	\$97,433
Acid of crude tartar.....	113,704	237,205
Cinchona barks.....	19,873	17,316
Cochineal	3,852	6,989
Logwood	108,668	134,339
Other dyewoods	3,311	19,560
Gums-Arabic	14,200	16,126
Camphor, crude.....	22,352	18,615
Gambier	126,024	173,025
Shellac	123,963	147,413
All other	336,312	353,263
Indigo	347,502	442,130
Licorice root	76,562	181,390
Bleaching powder	172,519	263,436
Mineral waters	2,712	16,610
Opium, crude	609,003	140,888
Potash-Chlorate	50,426	63,887
Murate	143,909	119,464
All other	35,538	73,322
Nitrate, crude	50,293	72,251
Quinia and other salts of cinchona bark	89,278	77,925
Soda, nitrate	157,581	427,064
Sulphur, crude	201,831	227,832
Vanilla beans	58,647	40,420
Miscellaneous	495,743	614,798
Total	3,317,044	3,982,751

Articles dutiable:		
Coal tar, colors, etc.....	148,419	257,060
Glycerin	37,305	63,105
Dyewoods	21,024	17,247
Opium for smoking.....	69,468	176,094
Soda-Caustic	8,493	17,253
Soda ash	214,490	503,173
Other salts of.....	14,395	36,207
Sumac, ground	12,185	41,578
Miscellaneous	417,991	642,427
Total	943,670	1,749,149

Exports:		
Acids	15,745	7,127
Ashes, pot and pearl....	1,102	3,084
Dyes and dyestuffs	71,451	63,577
Ginseng	2,150	56,352
Medicines, patent and proprietary	150,378	211,458
Roots, herbs, barks.....	13,074	19,129
Miscellaneous	453,254	313,508
Total	713,164	674,535

AUSTRIAN TRADE.

The United States Consul at Vienna, Austria, makes the following comments, prefacing his report of the trade of Austro-Hungary for 1893, published in the April number of Consular Reports No. 163: "It is deplorable what a poor showing the United States makes in the export of merchandise into this empire. With the introduction of free raw material into our country, we should be able to do much more business than heretofore. Manufacturers who wish a share of this business should work for it here in Austria just as they make

efforts for the trade at home. Those trying to find an outlet in foreign countries usually send catalogues to a Consul or ask for the addresses of one or more good business houses in their line, and thereby hope to open a field for their wares. This method will not succeed in one case in a thousand, and just so long as it is continued, just so long will the Americans do but little business outside of the United States, except in articles the foreigners must have.

"What foreign merchant will order American-made goods through a catalogue, when he is at the same time either handling similar goods or is having English or German goods offered through personal interview with a well posted representative? If a manufacturer at home is disinclined to go to the expense of sending out an agent, let him combine with one in another line, and thus reduce expenses. This is the way the Germans and English do when they send out agents to a country where they wish to build up a trade, and we can do no better than to follow their example. Representatives of American houses will always find their Consuls ready to aid them."

THE PRODUCTION OF NAVAL STORES.

The annual production of naval stores in the Southern States, according to the Savannah News, has reached for several years past the enormous output of 2,000,000 barrels, in round numbers, comprising about 400,000 barrels of spirits of turpentine and 1,600,000 barrels of rosin.

What these figures represent in capital, labor and industry will surprise many not familiar with the subject. This amount of 2,000,000 barrels of naval stores weigh very nearly, if not quite, 500,000 tons. Allowing 24,000 pounds, or twelve tons, to the car, it would require 40,000 cars to remove this bulk from the pine forests to the seashore. Allowing twenty loaded cars to a train, 2,000 train loads a year have to be run. Each train is about 800 feet long, so that 2,000 trains thus loaded would represent a solid single file of 395 miles, or reaching from Savannah to Atlanta, and fifteen miles beyond.

Placing these 2,000,000 side by side they would form an air line reaching from Savannah to New York, seven hundred and sixty-seven miles long. The cost of transportation averages 50 cents per barrel. Hence, \$1,000,000 freight are annually paid to transportation companies. Fully 50 per cent. more is paid for freight on supplies consumed by turpentine operators and passenger fares, giving a grand total of \$1,500,000 paid to railroad and steamboat lines.

To distill these 500,000 tons at least 800 stills are kept busy eight to nine months in the year. The average capacity of the stills is eight barrels, yielding five barrels of rosin and one to one and a half barrels of spirits of turpentine. Three hundred and thirty thousand charges have to be run, employing 800 stillers and as many assistants. Two thousand five hundred coopers are employed to get the material and make ready the barrels. To move this amount of crude gum from the forest to the stills and thence to the shipping point, 6,000 mules and 2,500 teamsters are steadily employed.

The cost of the still, mules, wagons, horses, tools and value of boxes already out will exceed \$5,000 to the still, representing a capital of about \$50,000 invested in the turpentine business. Allowing twenty crops of boxes, consisting of 10,500 boxes each to the still, there are 168,000,000 boxes in operation. Allowing two boxes to the tree, on an average, there are 84,000,000 pine trees being bled. Every tree has to be raked around every year to prevent destruction by fire. Every box has to be chipped once a week for eight months in the year; every box has to be scraped by hand in the Fall of the year. Besides this, from 40,000,000 to 50,000,000 new boxes had to be cut to replace discarded, burnt or dead trees. Every box has to be dipped four or five times during the season. All this work is done by about thirty-five to forty hands to each still, thus employing 30,000 to 35,000 well trained hands. This force is overseen by 800 woads riders or mounted men, who watch closely that the work is thoroughly and conscientiously performed.

Six or seven hundred commissaries or stores feed and clothe the army of 40,000 men and 7,000 mules and horses.

As large as this output of 2,000,000 barrels annually may seem, it does not by any means represent the actual output of crude gum from the prolific pine tree. Twenty to twenty-five per cent. of the gum remains on the trees, on account of the crude and imperfect way of scraping by hand, and never reaches the still.

To produce 2,000,000 barrels of the distilled product, 2,500,000 barrels of crude gum are necessary, and adding to this the twenty per cent. remaining on the trees, there is an annual production of 3,000,000 barrels of 500 pounds each, produced by 84,000,000 pine trees, or 18 to 20 pounds of the crude gum to the tree.

The turpentine operator pays for a three years' lease of one crop of boxes \$300, or, on an average, \$100 a year for 10,500 boxes. Hence, the landowners receive every year an income of about \$1,500,000. It will be seen that 800 stills pay every year, for freight and rent, \$3,000,000 or \$37,500 each, more than six times the invested capital.

The average wages paid will be somewhat over \$15 per month for eight months in the year, or \$600,000 per month—\$4,800,000 during the season. The cutting of new boxes, raking and scraping is all done by contract, and will bring the total output of wages to considerably over \$2,000,000. To feed 7,000 mules and horses costs about \$10 a month each, or \$70,000 per month, or \$840,000 is paid out for Western hay and grain.

The prices for rosin have ranged from \$1 to \$3 per gauge barrels of 250 pounds, but as the above figures are based on round barrels of nearly 500 pounds, the average value of rosin would not be less than \$3. The average value of a barrel of turpentine is about \$13, so that 2,000,000 barrels would represent \$5,200,000 received for spirits of turpentine and \$4,800,000 for rosin, making the total value for the crop for 1893-4 of \$10,000,000. Allowing 5 per cent. commission, the factors along the seaboard received \$9,500,000. Sampling, storage and fire insurance will average 10 cents per barrel, or \$200,000,

leaving to the 800 stills about \$500,000 net, or \$500 per still. To this should be added, however, the profits on commissaries or stores, through which the greater portion of the \$5,000,000 of wages are paid, bringing the income of the average still to about \$10,000 or \$12,000, not counting wear and tear and incidentals; so that this year there was hardly more than a living for the operators.

Savannah is the largest naval stores market in the world, receiving between five-eighths and three-fourths of the total production; consequently, Savannah's interests are closely linked to the interests of turpentine operators. Few operators and very few general readers have any knowledge of what becomes of this vast amount of rosin and spirits of turpentine. An enumeration of the technical employment they obtain will be of some interest.

As the South practically supplies the whole world with rosin and spirits, a small amount of either used for any purpose throughout the civilized nations amounts to considerable in the aggregate. Spirits of turpentine exposed to the air has the faculty of absorbing a large amount of oxygen, and, after absorbing it, to yield it to other bodies. It is, therefore, universally used, mixed with linseed and other drying vegetable oils, in painting. The spirits of turpentine causes these oils to form an elastic, tough mass, closely allied to rubber or caoutchouc, on which the quality and durability of the paint as well as varnishes depend. The oxidizing capacity of turpentine is unique, and so far no other known product of chemistry has been obtained to replace it fully. As a medicine, spirits of turpentine, taken internally, is a powerful diuretic. Externally applied, it is a powerful counter irritant. It is much used in medicine and by veterinary surgeons. If rosin is dissolved in vegetable oil and spirits of turpentine, a varnish is formed, so that rosin and spirits of turpentine form the basis of all the cheaper grades of varnishes. Turpentine is also used in the manufacture of rubber and insulating compounds. It is a solvent for nearly all oils, both vegetable and animal. Mixed with alcohol it forms camphine.

So vast is the demand for turpentine, and its qualities and effects are so unique, that the consumption, even at \$1 a gallon, would only be very little reduced. The low prices are entirely due to over-production, as it cannot be technically replaced by anything else.

Rosin forms with alkali a soap, and every soap factory in the world uses more or less rosin. The darker grades of rosin are employed to produce coarses, brown soaps, while the finest grades are used for toilet soaps. A mixture of two-thirds of rosin and one-third of coal tar forms a very tough and serviceable pitch, and large quantities of the lower grades of rosin are consumed in this way.

For a number of years several large establishments have distilled hundreds of thousands of barrels of the lower grades of rosin. Both Savannah and Wilmington have such establishments, and the demand for their product has steadily in-

creased at very remunerative prices. If rosin is heated to 600 degrees or 700 degrees Fahrenheit it distills, and the following are the products, about 18 to 20 per cent. being lost in cases, leaving the condensable and solid bodies: Rosin spirits, 5 to 6 per cent.; white oil, 33 to 35 per cent.; red oil, 26 to 28 per cent.; brewers' pitch, 7 to 8 per cent.

Lampblack factories are now in operation in Savannah and Wilmington and interior points, using waste rosin and dross. There is an unlimited demand for lampblack at \$60 per ton, and three to four tons of rosin and dross will make a ton of lampblack. A patent steam apparatus will also be tried next season, which will recover a large percentage of gum from the trees now going to waste. The cost of taking the scrape off by steam is not larger than by hand scraping, and adds from 10 to 15 cents to alxty barrels to each crop of 10,500 boxes. A market for dross has been created, and as other lampblack factories are projected, large shipments of lampblack from the turpentine belt will result.

Several attempts have been made to pit crude gum until Spring, and it has resulted in one instance in a gain of \$3 a barrel on 100 barrels of spirits. How this enormous and ever-increasing demand for naval stores will be supplied in another score of years, when our forests have become exhausted, is a problem for chemistry and human ingenuity to solve, using other natural resources, which another generation will have to discover.

THE COLORS OF TOBACCO SMOKE.

Smoke consists of minute particles of solid or liquid matter suspended in the air and its color depends partially upon the chemical constitution of such particles, but also largely upon their size. Exact experiment has shown that as the size of minute particles suspended in air is gradually increased they give rise to colors varying from sky blue down through the whole range of the spectral scale. This is the cause of sunset and sunrise colors in the sky. Its effects can also be traced in the case of the two kinds of tobacco smoke, modified by the murky tints of the carbonaceous products. The smoke given off from the heated surface of the burning tobacco in the bowl of the pipe consists of matter all of which has been highly heated and very fully oxidized and decomposed. It consists mainly of exceedingly small solid particles, emitting by virtue of their smallness a bluish color. On the other hand, that smoke which has been drawn through the tobacco into the mouth of the smoker carries with it a relatively large quantity of water and hydrocarbon, which are condensed upon the solid particles above mentioned. The relatively large size of such particles explains the well-known grayish color of the smoke which issues from the mouth of the smoker.

Gratitude and treachery are merely the two extremities of the same procession. You have seen all of it that is worth staying for when the band and the gaudy officials have gone by.—Pudd'nhead Wilson's Calendar.

TRADE NOTES.

You can find out what good beeswax looks like by asking Theodor Leonhard, Paterson, N. J., to send you sample cakes of his "T. L." and "Diamond L." brands. These waxes are guaranteed to be strictly pure, sun bleached without the use of chemicals.

Grand Rapids, Wis., 3-25-1894.

Otis Brothers, Binghamton, N. Y.

Gentlemen: Inclosed please find one dollar, for which send "Otis Never Failing Corn Cure." It is truly the best remedy extant for corns. Yours respectfully,

C. M. WEBB.

When the subject of saving money comes up, the Chicago Aeriform Carbon Co., 40 West Polk street, Chicago, have something to say which will interest every druggist who owns a soda fountain. See their advertisement in this issue, and note prices upon the No. 2 apparatus for charging portable fountain.

The Germania Wine Cellars, Hammondsport and Rheims, New York, distill a pure grape brandy for medicinal purposes only, and they invite those of the drug trade who are anxious to procure a brand of such goods upon which perfect reliance can be placed to correspond with them for prices.

The Buckeye Paint and Varnish Co., Toledo, Ohio, say that they have some fast-selling specialties for the paint trade, and as this is the season for such goods, those who handle paints should make it a point to become acquainted with the goods of this firm. Write to them and they will tell you all about their goods.

In looking for pill boxes do not overlook the advertisement of William Koehl, Erie Pa., in this issue. Mr. Koehl is just making the acquaintance of The Era's readers, and he quotes some prices on his specialties which are acting as an excellent introduction. He also has some prices on drug labels, boxes, corks, etc., which will interest any one who will apply for them.

Don't you want that \$1.50 Raymond & Co. are offering, or haven't you seen their advertisement on page 7? They offer you one-half dozen Pectoral Plasters free, and agree to send advertising matter with your card printed on it to one hundred of your customers. The advertising will probably sell the half-dozen plasters, but you can sell this kind of goods without advertising.

We are in receipt of a copy of Volume 24, 1894 catalogue, issued by Peter Van Schaack & Sons, "The Old Salamander Drug House" of Chicago. The book is an attractive one of nearly one thousand pages, thumb indexed, and as this is the firm's twenty-fourth annual effort, they are to be congratulated on its result. The edition, we understand, is a large one, and the work will no doubt be received with the appreciation it deserves at the hands of the many friends and customers of the firm.

REDUCTION IN PRICES.

Prices have been reduced at the Century Restaurant, 122 William street, New York, the quality of the viands remaining first class.

Druggists who have anything special in view in the way of pharmaceutical manufacturing, should write B. M. Butler, Armistage avenue and N. Paulina street, Chicago, for estimates on the cost of putting up such preparations complete. Mr. Butler's laboratory is fully equipped for economical manufacturing, and he invites correspondence.

Seely's Dyspepsia Powder, manufactured by S. S. Seely & Co., Bath, N. Y., while comparatively new to the general drug trade, has been tested enough to dispel any doubts as to its value as a remedy for the disease named. It is put up in a shape which suits the convenience-loving public, and is proving a good seller wherever introduced.

How about your soda fountain? How long have you had it? Do you think it perfectly safe? If there is any doubt about its stability write the Iron Clad Manufacturing Company, 22 Cliff street, New York for prices on their patent brass-bottom, tin-lined, steel fountains. These fountains are tested at a high pressure, and the manufacturers state that no one ever heard of one exploding.

The druggist has only to show the Pri-mo Ladies' Syringe, manufactured by E. J. Hussey & Co., 80 John street, New York, to the physicians of his neighborhood to insure a constant demand for them. These syringes are of new design, made of hard rubber, and perfectly aseptic. They are handsomely packed in polished cherry boxes. Try a sample lot. They are for sale by all jobbers.

Dr. A. L. Worden, Detroit, Mich., the proprietor of "Protectio" says that no fatal case of diphtheria has occurred in any of the thousands of families who used and are depending upon this remedy, and that it will safely cure enlarged tonsils wherever its administration is continued for some months. Weak, delicate children are said to become robust under its continued daily use.

The products of the Chemische Fabrik vorm Hofmann & Schoetensack, Ludwigshafen, Germany, are noted for their superiority and their choral hydrate (Saames brand), salicylic acid, paraldehyde, acetalind, resorcin, oil of bitter almonds, etc., can be procured through R. W. Phair & Co., 14 Platt street, sole agents for the United States. Send for literature upon Salacetol, "Chemia," the new non-toxic antiseptic, and mention The Era.

It is nothing unusual for the farmer to complain of short crops, and every druggist knows that such a condition of affairs affects him an indirect manner, but let the iceman herald the fact that the ice crop is short, and the effect is quickly seen by a raising of prices. At such times it is policy to look into the claims of the manufacturers of soda water apparatus as to the economy of their respective apparatus. The Low Art Tile Company, 92 Broadway, Chelsea, Mass., make distinctive claims for their apparatus in this line, and they will be pleased to demonstrate them to every intending purchaser who will take the trouble to write to them.

Grape soda, made from Dr. Welch's Grape Juice, is a great customer-catcher if it is made right, and as far as making it right is concerned, the Welch Grape Juice Company, Vineland, N. J., will send any druggist who will mention the Era a formula for making it, as well as a two-ounce sample of the grape juice and some figures showing what the goods cost. Better take advantage of this offer.

The druggist who is anxious to please his customers can do so at a slight expense by furnishing a corkscrew with each bottle of medicine he sells. This question of expense can be settled by writing James M. Macconnell, 132 Nassau street, New York, for prices on Clough's patent folding, decorated corkscrews. They are cheap and furnish an excellent advertising medium for the druggist who uses them.

"Everything you want at prices to suit your pocket book" is the position taken by John Phillips & Co. of Detroit in the matter of drug store fixtures. Their products embrace showcases of all kinds, including their "Silent Salesman" clear case, store fixtures, fountain tops (which make your old fountain look like a new one), store stools, mirrors, etc. Write them for designs and estimates before placing your order definitely.

The D. B. Scully Syrup Company, 49-51 River street, Chicago, claim for their Rock Candy Syrup a wholesomeness and delicacy of flavor that is unsurpassed, and they invite the trade to give their goods a trial for both pharmaceutical work and soda water dispensing. They warrant their syrup to keep in any climate. Write for descriptive price list and market quotations.

The new surgical dressing, "Unguentine," manufactured by the Norwich Pharmacal Co., Norwich, N. Y., is rapidly becoming a favorite with the medical profession, on account of its antiseptic, healing and restorative qualities. It is therefore quite proper that the drug trade become posted upon its therapeutic properties and application. Full information will be supplied upon application to the manufacturers.

Twenty-five dollars for an assistant accountant who will work for years without any further expense is certainly a good bargain. This is what the Peck Cash Register Co. of Syracuse, N. Y., offer in their No. 15 Cash Register. It never misses a day's work, and does not make mistakes, and is said to be just the thing for the prescription department. The manufacturers solicit correspondence from the retail drug trade.

A great economy can be effected by keeping goods in good condition for the inspection of customers. This is as true of brushes as of anything else kept in a drug store, and the Graves Brush Rack Co., of Rome, N. Y., furnish a fixture which meets this requirement to a nicety. Their Brush Rack soon pays for itself by preventing the marring of backs and breaking of bristles, and its construction is such that it will last a lifetime and pay continuous dividends.

Attention is directed to the attractive announcement of the New York Quinine & Chemical Works on the last cover of this issue. To procure anything in the way of medicinal chemicals, which will give entire satisfaction, the retail trade is reminded that the placing of the letters "N. Y. Q." after the item so ordered will insure such a result.

One great point which the manufacturers of Tanglefoot make in favor of their goods is the fact that it yields a profit of over 200 per cent. and you do not have to furnish an apology after you have sold a sheet. Goods of this character are the kind which please the public and give satisfaction to the dealer. See prices in advertisement in this issue.

Lautler's olive oil has always enjoyed the highest reputation for purity and desirable qualities, and the reason for this confidence in his product is given by his American agents, George Lueders & Co., 218 Pearl street, New York, in their advertisement in this issue. From the statements given therein it will be readily seen why it is important to specify "Lautler's" when ordering.

In addition to the manufacture of porous, medicinal, court and mustard plasters, the Deane Plaster Co., Yonkers, N. Y., have two specialties which people are very apt to call for if they know the druggist keeps them. They are the Anti-Grip Porous Plaster and Deane's Cough Plaster on Canton flannel, costing \$8 and \$12 per gross respectively. On order for one-half gross quantities and upward the buyer's card is printed on the goods free of charge.

The Upjohn Pill and Granule Company of Kalamazoo, Mich., are specialists in the manufacture of pills, and their improved methods in the manufacture of such goods enable them to turn out a product which meets the unqualified approval of the medical profession. Every druggist should have the list of over 500 kinds of pills which this company keep constantly in stock, and any one desiring private formula pills put up in the friable form should write for estimates.

If a salesman comes into your establishment and offers to save you 10 per cent. on an article you purchase, and can really do so, you are interested at once, and do not hesitate to place an order. Why, then, should you hesitate to place your order for an apparatus for charging soda and mineral waters with liquid carbonic acid gas which will save you 75 per cent. over all old methods. Write for catalogue and prices to the Liquid Carbonic Acid Mfg. Co., Chicago, Pittsburg or St. Louis.

A great improvement has recently been made in the Arnold steam sterilizers, manufactured by Wilmot Castle & Co., Rochester, N. Y., which adapts them for sterilizing at either a high or a low temperature. This improvement will render them more popular with the public and the medical profession, and the drug trade will do well to stock them in anticipation of the demand for such articles, which the Summer season always brings. Write for descriptive circular and price list, mentioning The Era.

Stewart's Gipsy Pile Ointment must be a good thing, according to the testimonials of many physicians who have used it in their practice with complete satisfaction. The profit on this preparation is just 100 per cent.—costs 25 cents and retails for 50 cents. Express or postage is paid by the manufacturer, Fred W. Stewart, Oswego, New York. Write him and see how he advertises the preparation to the general public.

A cold in warm weather is one of the most disagreeable things imaginable, and the druggist who is prepared to furnish a remedy for such difficulties is a benefactor to his kind. The means for attaining this end are found in Cushman's Menthol Inhaler, manufactured by H. D. Cushman, Three Rivers, Mich. The retail drug trade will be interested in the means which are used to advertise this inhaler to the public, and the advertisement of Mr. Cushman in this issue should not escape attention.

The Akron-Canton Stoneware Agency, 25 Lake street, Chicago, are making stoneware jars as large as thirty gallons, with or without faucet holes. These jars are well adapted for manufacturing chemists and wholesale druggists to store acids, age extracts and for mixing, etc. They are guaranteed to stand acids and alkalis, and with ordinary care will last forever. This firm also makes a specialty of supplying chemists with mixing bowls, evaporating pans, etc., and will be glad to send illustrated catalogue upon application.

The little problem in ratio and proportion which Smith & Painter of Wilmington, Del., present in their advertisement in this issue shows that there is a great deal in the way fruit juices are put upon the market for the economical buyer to carefully study. When it comes to quality Smith & Painter's pamphlet on natural fruit juices, which they send free of charge, will explain everything on that point and give lots of valuable information beside. Write for it and mention The Era.

Charles Stern & Sons, 14-16 Vesey street, New York, call the attention of the trade to a line of goods which is of particular interest to those who desire a superior article for dispensing or manufacturing purposes. The firm has large vineyards at Fresno and Los Angeles, Cal., and their wines and brandies reach the trade from first hands. Their sherry is especially suitable for the manufacture of beef, wine and iron, their Burgundy and Zinfandel for wine of cocoa and their Port, Angelica and Muscatel for dispensing purposes.

All that a druggist's customers can reasonably ask for in the licorice they purchase is quality. But in spite of this there are other things which help the dealer sell such goods, and among these is the attractiveness of the packages in which they are put up. The licorice put up by Mellor & Rittenhouse, Philadelphia, is distinguished by these two great features, neatness of package and fineness of quality, so that the dealer in ordering the "M. & R." brand is reasonably sure of getting quick-selling goods, and having pleased customers.

Druggists who are in search of a good brandy for medical use, should write to the Hammondsport Wine Co., Hammondsport, N. Y., regarding their special cognac process brandy. Full information as to the quality and prices will be furnished upon application, as this firm gives particular attention to all inquiries from the drug trade.

As direct importers and manufacturers of fine essential oils, essences and pure fruit juices, the Beach & Claridge Company of Boston are in an excellent position to furnish the druggist with everything he can possibly want in the way of soda water flavors and fountain requisites. All they ask in the way of introduction is your name and address upon a postal card, which will bring you their catalogue, which is well worth the asking.

Callisaya La Rilla, manufactured by Charles Allen Reed, 9 Cliff street, New York, can be depended upon as a first-class preparation of callisaya, because it is the exclusive product of one laboratory and manufacturing force, which has nothing else to do but make a good article. All the ingredients of the preparation are fully tested as to their quality, and a long experience in manufacturing this special product has taught Mr. Reed just where, when and how to buy his supplies. Correspondence with the trade is invited by the manufacturer.

Robert Shoemaker, Jr., of 215 Race street, Philadelphia, illustrates two of his eight sizes of tablet machines upon another page in this issue. These two machines, designated as "A" and "B," are especially adapted to the needs of the retail druggist, both being hand machines compressing tablets up to three-eighths inch and one-half inch in diameter respectively. Both are of light weight, but strong and durable, and occupy small space. Parties who are thinking of investing in a tablet machine should write for catalogue of the "Shoemaker."

The W. J. M. Gordon Chemical Company of Cincinnati, in a recent communication say: "We have just received official notice that we received medal and diploma at the World's Fair, Chicago, for 'High gravity and freedom from impurities' on our glycerin. This is quite a feather in our cap, as we were not only in competition with American, but with German, French, Russian and English manufacturers also. Still it only confirms the fact that wherever our glycerin is placed in competition with others it always and invariably takes the premium."

The enterprising druggist is the one who is constantly on the alert to serve his patrons with the latest and best, and he counts it a duty to investigate the merits and demerits of all articles to which his attention is called. The American Silver Trust Company, 200 Main street, Buffalo, N. Y., is after the trade of this class of druggists, and they claim that they have a truss which is a great improvement over many now on the market. To demonstrate this they will send full description of their appliance upon application, with plenty of testimonials from parties who are now handling them with profit.

The Inquiry from Jesse Jones & Co., Philadelphia, as to what you put up, is one which is quite pertinent when you remember the long list of articles which you might put up, if you had the proper means for doing so. This is the reason they call attention to their well-known "J. J. Box," as one which fills the requirements for durability, cheapness and attractiveness. They invite inquiries for quotations in any quantities from a thousand to a million, and guarantee prompt service, both in answering such inquiries and in turning out the goods afterward.

Although the retail druggist is usually one of the busiest persons upon earth, yet he ought to take time to figure on the brushes he buys. A great help in this way is the catalogue of the Palmer Hardware Mfg Co., Troy, N. Y., which shows a complete line of metal brush specialties manufactured by this firm, and is sent free upon application. Their "T. M. C." dauber, consisting of a solid knot of extra stiff bristles upon a polished nickel-plated steel handle, is a great seller, and the retailer should get prices upon it for reference when ordering such goods.

The doubling capacity of a pharmaceutical manufacturing plant within three years is pretty good evidence that the products of such a concern are well appreciated by the drug trade. Such is the record of J. E. Moore & Co., 415 Broadway, Albany, N. Y., and they invite every druggist in the United States to send for their 1894 catalogue and become acquainted with the very complete line of pharmaceuticals which they manufacture. They will also be pleased to furnish quotations upon special preparations and private formula work, their complete facilities enabling them to turn out such work in the most satisfactory manner.

If there is a physician in your neighborhood whose patronage you would like to obtain, the best way to go about the matter is to show him how well you can perform some of the essential operations in pharmacy. You might show him how you can dispense powdered drugs in a manner which allows the patient to receive the full benefit of the medicine and at the same time be pleasant to take. Before doing this, however, you should write J. M. Grosvenor & Co., 105 Milk street, Boston, for samples and particulars regarding their "Konseals." They are cheap, save time, please the patient and are just what the physician will approve.

People are very imitative about house-cleaning. Let one person discover some short cut around the difficulties of this operation and the rest of the neighborhood follows suit. It is just this way when a package of Gyp sine, manufactured by the Diamond Wall Finish Co., Grand Rapids, Mich., is once introduced into a community. Its use soon becomes universal. The proper thing for the druggist to do to start a trade of this kind is to send to the manufacturers for color cards of this wall finish, and a copy of the "Gyp sine Advocate," which circulates among the people with the dealers' name upon it, and helps sell Gyp sine.

Any investment which tends to increase a man's stock of knowledge cannot but be regarded as a good one, and the increase which comes from a study of the pages of "Saxe's New Guide; or Hints to Soda Dispensers," makes the investment of \$3 for it an exceptionally good one. This small amount often represents the difference between good and bad soda water. Those new to the business can learn all about it, and those old in the business can learn something new by a perusal of the work. It is published by the Saxe Guide Publishing Co., 409 Dearborn street, Chicago.

H. Planten & Son, 224 William street, New York, announce to the trade that they have become proprietors of the preparations formerly owned by the late firm of Fraser & Lee, and ask that all future orders for these goods be sent to them. This line of preparations includes Baker's Pain Panacea, Brandt's Indian Pulmonary Balsam, Brandt's Indian Purifying Extract, Campbell's Cholera Cordial, Desher's Fever and Ague Pills, Kellogg's Worm Tea, Laycock's Worm Killer, Miller's Hair Dye, Punderson's Condition Powders and Tanner's German Ointment.

The much debated Subgallate-bismuth-Dermatol matter now seems in a fair way to approach a focus. The *Farbwerke vorm Meister, Lucius & Bruning*, have brought suit against *Rosengarten & Sons*, of Philadelphia, to restrain them from manufacturing subgallate of bismuth, which the plaintiffs put upon the market under the name of "Dermatol." The contention does not include any action for infringement of the trade-marked name, but simply the process of manufacture. It is understood that the defense will claim that a process for manufacturing basic subgallate of bismuth has been known for over fifty years.

The therapeutic qualities of Iatrol, the new odorless, non-toxic antiseptic, have been fairly well established by an abundance of clinical tests, so that the manufacturers of the preparation are justified in placing it before the medical profession in all the varied forms which surgical practice may demand. The advertisement of the *Clinton Pharmaceutical Co.*, of Syracuse, N. Y., in this issue, shows the different ways in which it is put upon the market and the wholesale prices for the same, and its growing popularity with the medical profession makes it a preparation which the drug trade will do well to become posted upon.

The season for painting is now in full blast, and the gentlemen in caps and overalls are now busy making old houses look like new ones. If there are any houses in your neighborhood which need painting, perhaps you are to blame somewhat. You may not have presented the question of colors and prices to the owners of such property in a convincing manner. If you don't know exactly how to do this, write to *John Lucas & Co.*, Philadelphia or Chicago, and they will show you how to do it by sending you some of their attractive color cards, which induce people to buy paint, and then feel perfectly satisfied after they have bought it.

The *Mobile Drug Co.*, of Mobile, Alabama, whose place of business was destroyed by fire on March 16, 1894, announce that they have purchased the stock of goods, good will and accounts of the *Marshall-Quarles Drug Co.*, of that city and will continue the wholesale drug business at 57-59 North Water and 55 St. Michaels streets. They will carry a complete stock of everything that belongs to the jobbing drug trade, and ask a continuance of the favors which have been given both firms in the past.

The list of fruit juices for soda fountain use presented by the *I. Calvin Shafer Company*, 86 Cortland street, New York, embraces all the popular fruit flavors which the most discriminating patronage will demand, and the economy which the dealer is enabled to practice through the use of this firm's goods is an additional recommendation for them. Blackberry brandy will soon be a seasonable article and the druggist who is figuring upon a supply for the Summer should investigate "Shafer's Medicinal" brand. Write for prices to the New York house, or to their Western branch at 197 Randolph street, Chicago, Ill.

The pure Synthetic Oil Wintergreen, manufactured by the *Herf & Frerichs Chemical Co.* of St. Louis, which was introduced by this firm several years ago, is now considered the standard make in the trade, and the demand for it is constantly growing. Their oil is always perfectly white, and has a very mild, clean flavor. Synthetic oil is preferable to the natural oil, because the latter is variable in its composition, and is not as pure as the H. & F. synthetic oil. For the convenience of their Eastern friends they carry a stock of oil wintergreen, salicylic acid, acetanilid and other leading specialties in their warehouses and office, 95 Fulton street, New York.

The *Rochester Show Case Works*, whose advertisement appears in this issue, are manufacturing an elegant plate-glass cigar case, on low base, combining in one splendid piece of furniture a counter and showcase for the display and storage of fine cigars. As this firm prides itself upon the high grade of work which they turn out, the drug trade will find their interest in fine showcases well repaid by an inspection of the catalogue of this firm, which will be sent free upon application. This company has lately moved into new and commodious quarters at Nos. 9 and 11 Graves and 7 and 9 Aqueduct streets, Rochester, N. Y., and their increased facilities at their new location place them in a position to turn out work equal to the best in the country.

WORLD'S FAIR PICTURES.

Later parts of the *Michigan Central's World's Fair Portfolio* fully justify the claim made upon the publication of the first number, that it was the best, the finest and the most artistic of popular publications on the White City.

Each part contains sixteen (16) large plates and is sold for only 10 cents. If you haven't seen it, the nearest *Michigan Central* ticket agent will show it to you, or you can write to *C. W. Ruggles*, G. P. and T. Agent, Chicago.

One point in favor of the use of Bromo-Chloralum as a disinfectant and desodorizer is its cheapness. One bottle diluted with water makes twelve pints of proper strength for use, and the fact that it is non-poisonous renders it a great favorite for general domestic use. Any druggist who will send a list of the physicians in his town to the manufacturers, the Bromo Chemical Co., New Lebanon N. Y., will be benefited by the means which the company employs in interesting the medical profession in this preparation. On orders for three dozen, 500 counter wrappers, with buyer's name thereon, are furnished, and the season is near at hand when the public takes an interest in such literature.

In looking the field over for seasonable goods, the fact should not be forgotten that there are such goods in the regular drug line, Wm. H. Warner & Co., Philadelphia, New York and Chicago, call attention to several articles of this character, which the retailer can appropriately stock with confidence that a good demand will follow during the Summer months. Among them are effervescent Lithia tablets, and effervescent Vichy tablets, put up in square nickel-capped jars—fifty tablets in each jar; also granular effervescent tablets of hydrobromate caffeine, put up to retail for 10 cents. See prices in advertisement in this issue, or write the firm at 18 Liberty street, New York, for further information, or special quotations upon large lots.

One of the latest adaptations of advanced therapeutics is the diphtheria antitoxin solution, prepared by Schering of Berlin, and handled in this country by Schering & Glatz of New York. The manufacture of this preparation upon a commercial scale is the result of the investigation of Hericourt, Richet, Behring and Aronson upon the substances present in the blood of certain animals, which protects them against infectious diseases, and its use as a preventive against diphtheria is now recognized by many of the leading members of the medical profession. The preparation is made under the personal supervision of Dr. Hans Aronson in the bacteriological laboratory of the *Chemische Fabrik auf Actien*, Berlin, and full literature upon the subject will be supplied upon application to the American agents, Schering & Glatz, New York.

Probably the first thing that engages the attention of the purchaser of soda water is the fountain from which it is dispensed. The next objects for inspection are probably the tumblers and holders, and if there is anything about their appearance not in keeping with the taste and elegance of the fountain there is sure to be a certain amount of disappointment in the mind of the customer. In a business such as that of soda water, attention to all its details is essential to success, and the druggist who is not quite sure that his entire outfit is in harmony should note the late advertisements of Whittall, Tatum & Co. of Philadelphia, and see what they are offering in the way of tumblers, tumbler holders and other adjuncts of the soda fountain. Their goods will please the public, and their prices will suit the discriminating buyer.

Chas. F. Whittle, manufacturer of drug store fixtures, Boston, Mass., has lately inaugurated a new departure in his business methods, consisting of a complete line of oak sectional drug drawers, tincture shelving, patent medicine cases, prescription cases, counters, etc., made "knocked down," finished, so that any one can set them up without the services of a mechanic. The "K. D." fixtures make a very handsome and attractive store, and parties contemplating any change in the arrangement of their place of business should write to Mr. Whittle for photo graphs and prices.

Exasperation is a very mild word for the feeling which a person experiences when he buys goods which are so carelessly wrapped up that they can't be carried home without being spilled or damaged. The enterprising dealer is alive to this fact, and takes every means possible to prevent such annoyances, but he cannot do something with nothing. There is nothing that acts so much as an incentive for doing things properly as the possession of proper appliances, and one of these latter which has just taken tendency is the Economic Roll Paper Cutter, made by the American Roll Paper Company, St. Louis, Mo. With an appliance of this sort, tidiness in putting up goods becomes a pleasure, and the druggist who has the least suspicion that he is careless in such matters should commence his reform by investigating roll wrapping paper.

One of the essentials to success in the soda water business is convenience in dispensing and one of the features of the business which has long been in need of conveniences is that of serving ice cream with soda water. The ordinary freezer is an unsightly object, which has to be kept out of sight, and its storage in an out-of-the-way place usually results in back breaking efforts to get at it. These conditions are what have made the Bradley Ice Cream Cabinets such favorites with all those who have used them. They are made in two sizes for soda fountain use, and in addition there is a delivery and family cabinet, which every druggist should investigate, who is at all anxious to extend his trade, and push it for all there is in it. Full descriptive circulars and price lists of these cabinets will be sent upon application to the Bradley Manufacturing Company, 218 George street, New Haven, Conn. Write them and mention *The Era*.

The soda fountain goods advertised by V. H. Schieffelin & Co., New York, in this issue are not presented as the cheapest on earth, but are guaranteed to be of the very best quality, and are sold at fair prices. These prices are those which bring a fair return to the manufacturer after he has expended his money for the best fruits the markets afford, and has used the highest skill in the making of his product. In addition to pure fruit juices, this firm has several notable specialties, such as "Beekman" Chocolate Syrup, Extract Jamaica Ginger, and concentrated tinctures of fresh orange and lemon peel, and it will pay the dealer to investigate these, also to write for the full descriptive list of other fine soda fountain requisites which this firm manufactures.

Those having given Clarke's Pure Rye Whiskey a trial declare it is one of the purest and best spirit stimulants they ever used. It has been the aim and intention of the manufacturers of this whiskey to make Clarke's Pure Rye the standard tonic of the present day. With this object in view, they have spared no expense to produce a whiskey that all physicians recommend as worthy of their prescriptions. The manufacturers claim that Clarke's Pure Rye Whiskey is absolutely pure. It does not contain a single grain of corn. It is made in the Fall from fresh, new rye and barley malt, thereby never using any musty grain in its manufacture. Colburn, Birks & Co. of Peoria, Ill., are the sole distributors of this whiskey, and recommend it to druggists not only for its equal ties as a whiskey, but for the profit there is in handling it. The druggist can make 150 per cent in handling these goods, which is surely enough profit for any one.

A knowledge of the nutritive qualities of bread and beef is one which has come down to us from an early period, but their use has usually been restricted to a maintenance of the physical well-being of the robust and healthy. A form of administration of these two foods which was adapted to the enfeebled powers of the convalescent has therefore always been a subject for experiment and investigation, and this research has given to the medical profession a bread and beef peptone, under the name of Panopepton, manufactured by Fairchild Brothers & Foster, New York. This preparation consists of the entire edible substance of prime lean beef and best wheat flour, thoroughly cooked, properly digested, sterilized and concentrated, and is a remedy par excellence in all conditions where a full quickly assimilable and comprehensive nutriment are required. Druggists who call the attention of their physicians to this preparation are doing a favor which will bring them direct financial returns.

Any dealer who will drop a postal to the Yellow Pine Extract Company, Allegheny, Pa., for printed matter, will receive blanks for names of sufferers from rheumatism, neuralgia, gout or lumbago—which, when filled out and mailed back, will receive prompt attention from the company in the way of mailing circular letter describing the Infallible Cure—with dealer's name attached as supply depot. Following testimony will show what the sale of each bottle means to the druggist.

Coalburg, W. Va., Sept. 21, 1892.

Yellow Pine Extract Company.

Dear Sirs: I have taken your Yellow Pine Compound and it has done me more good than anything I have ever taken in my life. I believe by the time I have taken this bottle, it will cure me sound and well. I wish to thank the Yellow Pine Extract Company. I have a friend here who wants a bottle, for which find enclosed \$2.25. Yours truly,

NATHAN HARRIS.

One bottle sold is the beginning of a steady demand, for a first-class article with good margins—\$18 per dozen—cash discount of 6 per cent. Retail at \$2 per bottle.

CRAB APPLE BLOSSOMS

When a Russian official is ordered by his Czar to serve in Siberia he has more things to meditate upon than the autocracy he is going to establish in his far-away province with himself as the central figure. He knows that he is going where the good things of life are as dear as tariff and long freight charges can make them, and he must be a very opulent official indeed if he does not have to deny himself some of the luxuries he has been accustomed to.

In fact, the exorbitant prices that the Russian tariff system imposes on goods from foreign markets in Siberia is one of the great drawbacks to residence in that country. It has kept the trade of these great provinces retarded to a degree scarcely conceivable, so great indeed that even the Czar himself saw that something was wrong.

A hardy, adventurous Englishman a few years ago thought he saw a way in which this would be in some way improved and at the same time a slight profit accrue to himself. The story of his expedition is one of the most thrilling of modern times. The Imperial Government had for a long time desired to open some communication from outside with interior Siberia by means of a great northern waterway of the Obi Gulf and Sea of Kara. As there are only three or four weeks in the year when this channel is free from ice, no communication had been established. The Englishman obtained from the Czar a concession that all tariffs should be remitted for three years on goods brought around by the north and down the Obi River to Tobolsk. To establish this means of transportation the Czar willingly consented. Then the Englishman fitted out his vessel, and secured from Tobolsk orders at fancy prices for all the luxurious things which the resident officials could think of. A large consignment of the Crown Perfumery Company's goods was among the cargo with which he finally sailed in the middle of Summer.

The expedition, however, was doomed to failure. In the Sea of Kara the vessel broke down in the midst of the ice, and in the struggle that finally saved her the Englishman was washed overboard and lost. The boat finally succeeded in getting through, but so long after the time that all the merchants to whom her cargo was consigned thought she had been lost, and canceled, with one exception, their orders for goods. The exception was in the case of the Crown Perfumes on board, which were readily accepted and sold at fabulous prices.

This was the last attempt made to open the northern waterway to Siberia, but the Imperial Government has not forgotten the plan, and another attempt will in all probability be made before long.

There should be no question or doubt as to the cleanliness of the tumblers in which soda water is dispensed, and one of the surest ways of attaining this end is the use of all the modern apparatus which make the work easy and pleasant. The Automatic Tumbler Washers, with or without brush, manufactured by L. L. Rowe, 16 Howard street, Boston, are appliances right in this line, and are worthy of careful investigation.

A WORTHY ARTICLE.

The Cooper Sheep Dip.

The above mentioned preparation is now being systematically introduced to the drug trade by the proprietors' American branch house—William Cooper & Nephews, Galveston, Tex., which point has been chosen as the importing point for this continent. Supply depots have been established at New York, Chicago and many other points, for the convenient distribution of the goods in small quantities.

A few words concerning the history of this valuable preparation will be interesting to our readers, and especially to those residing in sheep districts. It was put upon the market in England just fifty years ago, after long and laborious experiments by the originator, William Cooper, since which time the trade has grown to such immense proportions that to-day no less than 250 persons are exclusively employed in its manufacture. The proprietor and other members of the firm graduated with honors from the Royal College of Veterinary Surgeons, London, and so prominent are they in their profession as expert scientists in the skin diseases of sheep that they have frequently been approached by different governments for advice. Since its introduction more than thirty imitations have seen the light, and as quickly receded into darkness, and even now one occasionally is given birth and placed upon the market with a loud flourish of trumpets only to follow its predecessors.

The article has a supreme reputation all over the world, and there is no room for doubt that it is about to take its proper position in this country as a standard article in every drug store. In England it is familiar to every druggist.

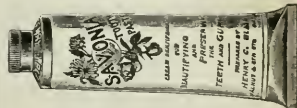
For many years it has been in high favor on western ranches as a scab cure, but the proprietors are determined to introduce it into the remotest districts of this vast continent, notwithstanding the heavy labor and expense involved.

Its chief advantages are that (1) it is certain death to all insects that prey upon the sheep, (2) it is lasting in its effects, and so prevents fresh attacks for a long time; (3) it positively stimulates the growth of wool to a surprising extent, which is one of its chief features; (4) it dissolves in cold water and is instantly ready for use; (5) it is a powder compressed into packets, never wastes or deteriorates, making it a perfect stock article. The article received a medal and diploma at the World's Fair, and sheep that had been dipped in it carried off more than 300 premiums, which created somewhat of a sensation among breeders. Its undoubted and peculiar merits were thus demonstrated beyond the question of the most skeptical.

Druggists who have not done so are requested to furnish the proprietors with a list of the names of sheepmen in their respective districts, when circulars bearing their name will at once be mailed to all the parties, and a trade at once started. Attractive literature of a superior kind will also be furnished to every druggist who may apply for same, and his name appended. It is not too much

to say that many will accept such an offer made in so genuine and straightforward a manner.

Inquiries for prices and all other information may be obtained of the Cooper Dip Depot, 178 Michigan street, Chicago; Mr. Cyril Franklyn, Cotton Exchange, New York, or William Cooper & Nephews, Galveston, Tex. The latter will attend to all requests for literature. The nearest point will be the cheapest to buy from. A good commission is provided.—Adv.



A dentifrice to be popular with the public should possess the proper medicinal ingredients to heal and strengthen the gums, sweeten the breath, prevent decay, etc.; should cleanse and polish the teeth, and be free from acid or gritty material. The new tooth paste, "Savonia," lately put upon the market by Henry C. Blair, Walnut and Eighth streets, Philadelphia, possesses all these qualities, and is put up in a way which induces the public to give it the preference. Instead of the usual earthen-ware pot or thick bottle, Savonia comes in a thin collapsible tube, by which it is protected from air and moisture until the last portion is used. It is clearly, as it can be placed directly upon the brush, and does not get "messy" with water or spilled upon the toilet stand. It takes up the smallest possible space and cannot be upset or broken. It costs \$1.75 per dozen, and pleases customers. Write for advertising matter on this preparation and judge of its selling qualities.

A. D. Puffer & Sons, 38 Portland street, Boston, say that the essential attributes of a profitable soda water business are a beautiful apparatus, choicest extracts and fruit juices, courteous and prompt attendance and perfect cleanliness. The hundreds of elegant designs in marble and onyx which this firm has to select from shows that they can give the druggist the proper assistance upon one important point—that of selecting the beautiful apparatus. They can also furnish anything required in the beverage line. Send for their catalogue and see what they can do for you.

The additions which must be made to the library of the druggist by reason of the revision of the United States Pharmacopoeia are quite extensive, embracing, as they do, the work itself and the two dispensatories. The expense of these additions, however, can now be regarded as a nominal one, in view of the offers which McClellan & Patton, 48 Maiden lane, New York, make in their advertisement in this issue. In addition to offering the dispensatories and Pharmacopoeia free on orders for Dr. Patton's Headache Specific, they also give a set of metric prescription weights with orders for two dozen of the preparation. Note their special offer to send one dozen free to help start the trade in their remedy, and remember that these offers are only good until July 1, 1894.

In addition to their well-known remedies, obesity pills, fruit salt and bands, Lorink & Co., of 2222 Hamilton Place, Boston, have recently placed upon the market a remedy for thin people, called "Fat-ten-u," which they are advertising extensively. Interesting information regarding the remedies put up by this firm will be sent to the trade upon application.

Attention is directed to the advertisement of the Albany Chemical Company, of Albany, N. Y., in this issue. The products of this company cover a wide range of articles belonging to the practice of pharmacy, and the discriminating buyer will do well to have the price lists and catalogue of this firm before him when ordering goods.

The Saltsburg Bottle Works Co., Limited, Saltsburg, Pa., are sending out to the trade a very attractive catalogue with red-lined pages, calling attention to their regular line of bottle ware and the various specialties, such as citrate magnesia, tooth wash and pomade bottles. Every druggist should have this catalogue, and investigate the firm's specialties, which are now enjoying a great demand from those who always want the latest.

The Hart Manufacturing Co., 13-17 North Jefferson street, Chicago, manufacture complete marble and onyx soda water apparatus, with all the modern improvements, and their low prices, easy terms and liberal allowances for old apparatus have been instrumental in building up a large trade and making many friends among the retail drug trade. If you are interested in soda water apparatus, send to this firm for designs and prices.

EVANSVILLE, IND.

Chas. F. Foster has opened a new store on outer Fulton avenue, which is a credit to the city.

Thos. Johnson of the Fuller & Fuller Co. of Chicago has just visited the retail trade.

The J. F. Bomm Drug Co. has placed in position two large Puffer soda fountains, and has put in charge Chas. Eckert, an expert mixer from Chicago.

Chas. Mantel of Haynie's pharmacy is confined to his room by illness. His place is being filled by Ed H. Niehaus.

John C. Wyttenbach of the J. F. Bomm Drug Co. is assuming large proportions since he has taken to the gymnasium.

F. Q. Young, doing business at the corner of Grant and Washington avenues, has added a line of spectacles to his stock of drugs.

Chas. Walden of Walden's pharmacy, a member of the G. A. R. Drum Corps, has taken a trip to Indianapolis.

A. R. Pfaffen, a late graduate of the Chicago College of Pharmacy, has purchased the store of A. Walter, corner of Virginia and Main streets.

Geo. B. Howe, who had retired from the drug business for the past year on account of ill health, has assumed charge of Wm. Alexander's pharmacy, in the West End.

E. B. Williamson, representing the Jones & Hill Co. of Elkhardt, Ind., sought the

trade in the interest of his house, with the result that the city is now being flooded with chewing gum.

J. B. Stammel, a popular and entertaining gentleman, has shaken the Evansville dust from his brogans and decamped for his home in Cincinnati. Mr. Stammel's connection with the stores of Chas. Lavin and Wm. Alexander made for him many friends, who regret his leaving the city.

Walter R. Falling, one of the leading lights of pharmacy in Evansville, has been appointed a delegate to the convention of Populists, which will take place at the Hoosier capital in the near future.

John W. Plock, a graduate of the Louisville College of Pharmacy, now prescriptionist in the employ of Frank J. Klefer, corner of Frankfort and Reservoir avenues, Louisville, spent the past two weeks in Evansville visiting a sick brother.

At the last regular meeting of the Evansville Pharmaceutical Association a report of the various committees on programme was received and filed, the object in view being the entertainment of the Indiana State Pharmaceutical Association, which meets here in June. The affair promises the greatest assemblage of Hoosier pharmacists ever at a State meeting. Among well-known members of the profession who will be in attendance are Professors Lloyd and Fennel of Cincinnati, Diehl of Louisville, Green of Purdue University, Eitel, Hurty, Carter and Perry. Evans Hall has been secured, and Mayor Hawkins, with an address of welcome, will start the ball. An opening address by President George W. Haynie of the E. P. A. will next be in order. At the adjournment of the first session carriages will be taken for a view of the sights about Evansville, and at night there will be a general banquet. At the next day's session interest will be at its height, as several spicy lectures are on the docket. In the afternoon a ride on the steamer Royal to Henderson and return. Ample accommodations have been provided, and the Evansville Pharmaceutical Association hopes to greet every one interested in the welfare of the profession.

PEORIA, ILL.

Mr. Henry Smith, ex-president of the I. P. A., recently spent a day here.

Samuel Coffinberry is now an Alderman in the Fourth Ward.

Arthur Topping of the firm of Singer & Wheeler has been laid up with a very badly sprained ankle.

Chas. Bagnhart, manager of the sundry department of Singer & Wheeler, spent a week or two buying goods in New York recently.

Peter Bourscheidt sails for Germany on the 25th of May on the steamer Rhyndlan. He expects to make a tour of Europe before he returns.

F. De Kroft of Kavanagh's pharmacy recently returned from a hunting expedition up the river. He had a good time, but not much game.

J. F. Rowcliffe, on the West Bluff, has been absent from his store for some time. Rheumatism is the cause. Reported better now.

Probably some readers would be interested in the doings of the distilleries. Beside making alcohol, they feed innumerable cattle with the refuse. At present there are over 20,000 cattle being fed, and all are the property of Nelson Morris. There are 5,000 at the Monarch, 5,000 at the Great Western, 4,000 at the Woolner, 3,700 at Barker's, 2,000 at the Manhattan and 2,000 at the Northern. They are fed on mash and hay.

Kojl—Wheat bran, which is much cheaper than the barley used in making malt, is steamed and then spread on a cement floor. The seed of a microscopic plant is scattered through it. The room is heated and dampened, so that the atmosphere resembles that of a sultry summer day. And the seed multiplies rapidly, and a fungus grows on the surface. This fungus is called kojil. In forty hours the growth is stopped, and the entire material, bran and kojil, is placed in large tubs, mixed with water, and the extract of kojil is obtained. This is a liquid which resembles tea in color, and tastes like walnuts. The residue is pressed and dried, and the product is nutritious feed for cattle, which sells for nearly as much as the wheat bran, so that the material out of which the kojil is obtained has cost very little. Some of the kojil is allowed to mature, and from this the seed is obtained for the fresh planting.

The extract of kojil is pumped several hundred feet up to the distillery, where it is mixed in the cookers with cornmeal and water, the meal having been weighed by the Government officers, and in fifteen minutes the starch is converted into sugar. The conversion is accomplished by diastase, which is contained in kojil and is also in malt, but it is claimed that the kojil costs one-third as much as malt, and is so much stronger that it converts more sugar from the same amount of cornmeal. The cooked mixture is sweet and pleasant to the taste, and very nutritious.

It is pumped up into enormous tubs, each holding 31,000 gallons, where yeast is put in, and the mixture is allowed to ferment, and drawn off into stills. The mash is pumped into sheds and fed to cattle, who become very fat on it. Two tubs are mashed each day, and it takes the contents of seven cookers to fill them. Fourteen hundred bushels of corn are used daily.

QUINCY, ILL.

Heidbreder Bros. are now running two stores, having just purchased that of W. F. Smith, at 12th street and Broadway.

J. O. Christie, leading druggist, has taken a partner, Edward Granacher, and the firm is now the Christie Drug Company.

H. Germann of State street, is building an addition to, and completely refitting, his store. He will have one of the best in the city.

The Aldo Sommer Drug Company, succeeding the old firm of Sommer, Lynds & Co., who were burned out in February, opened for business the 1st of May, with a complete new stock.

Charles E. Lionberger, member of the firm and in charge of the city business of Aldo Sommer's Drug Company, is very

assiduous in visiting and looking after the wants of the retailers.

Dr. J. Y. Lewis has assumed the duties of president of the Quincy Retail Druggists' Association.

The warm weather caused a boom in the soda business, and every store sells the "best drinks in the city." The Newcomb Pharmacy is a popular stand.

Judge Walker of the City Hall Pharmacy reports largely increased business. Johnny Fischer looks after the prescription department.

Business among the retailers this Spring shows very gratifying improvement. In jobbing lines there is a general good demand for staples. The paint and oil trade is active, and the outlook is good for future business.

BOARDS OF PHARMACY.

Washington State Board of Pharmacy held its regular quarterly meeting at Seattle, May 14 and 15.

Rhode Island Board of Pharmacy is composed of President N. N. Mason, Providence; Secretary, W. E. Cates, Providence; W. E. Clarke and W. J. McCaw, Providence; J. H. Taylor, Newport; A. E. Collins, Westerly; H. M. Dudley, Woonsocket.

Mississippi State Board of Pharmacy met in Jackson, April 3. The following were granted licenses upon passing satisfactory examination: W. A. Adams, S. J. Winston (colored), of Natchez; L. J. Metz, Hansboro; A. S. Booth, Burnsville; A. D. Simington and E. G. Spisales, Meridan.

Colorado Board of Pharmacy, at its last meeting, out of a class of twenty-one candidates, granted certificates to John Boeck, Marie D'Armour, George A. Crowe, George W. Card, Henry Allen Russell, Ives Van Schaack, Bryan A. Tuttle, C. J. Setthel, S. C. Du Bois, R. Bartlett and E. F. Perry.

New Hampshire Board of Pharmacy held its quarterly meeting at Concord, April 25. Of seventeen candidates the following were successful: George H. Sanborn, Alfred B. Stimson, Concord; W. C. Leonard, New London; E. E. Castor, Manchester; Arthur Clarke, Dover; H. L. Benson, West Derry; Dante Smith, Manchester, and D. J. Buckley, Boston, Mass. Next meeting July 25, probably in Manchester.

North Carolina Board of Pharmacy met in Raleigh, April 11 and 12: The following passed satisfactory examinations: W. Hoyle Gardner, Shelby; Howard Gardner, Winston; M. H. Aycock, Lousburg; H. W. Brodoux, Asheville; R. C. McNorton, Wilmington; James E. Shepard, Charlotte; Charles F. Crews, Winston; Harmon H. Perry, Wake Forest. A. W. Rowland, a member of the board, having tendered his resignation on account of declining health, O. M. Royster of Hickory was elected to fill the unexpired term. The next meeting will be held in Asheville a few days prior to the meeting of the A. P. A.

Illinois Board of Pharmacy examined a class of 103 in Chicago, April 10-13, 1894. The following passed as registered pharmacists: W. C. Ballowitz, W. H. Behrens, T. F. Cannon, R. S. Christman, C. K. Cress, J. F. Flske, K. R. Forston, S. G. Frank, P. Fullen, J. C. E. Hagen, B. K. Hollister, P. Mahanes, Jr., F. W.

Keuper, W. M. Nachtway, H. A. Nellson, H. J. Schulte, A. D. Thornburn, E. J. Weeks, H. H. Weissenborn, O. Wintermayer, G. F. Yates, H. J. Zapp of Chicago, H. E. Horrall of Olney, C. R. Jackson of Gibson City, C. L. Krause of Peotone, C. V. Nyman of Batavia and W. H. Schmiedeskamp of South Evans-ton. The next regular meeting will be held at 173 39th street, Chicago, June 12, 1894.

The Missouri State Board of Pharmacy met in Kansas City a few days ago and examined seventy candidates for certificates. Of these only twenty passed, having answered 70 per cent. of the written and oral questions. Fourteen juniors from the Kansas City College of Pharmacy took the examination, but not one of them passed, though they had won honors in college. The following are those who passed the examination: Thomas Bailey, E. P. Fish and W. F. Newton of Lawrence, Kan.; C. J. Fritz, William Richardson, H. E. Roland, B. L. Welsh and G. E. Webber of Kansas City; S. Bronde and H. E. Silverstone of St. Louis, A. Burvenich of St. Joseph, H. T. Clark, Otterville; W. E. Floyd, Slater; M. S. Grigg, Verona; W. W. Gregory, Hughesville; G. Kathan, Trenton; B. Meek, Mound City; M. S. Middlesworth, Iantha; L. L. Walden, Miami, and E. F. Westhoff, La Grange.

California Board of Pharmacy held its regular quarterly meeting April 11, 12 and 13. The following were registered as graduates in pharmacy: W. B. Whitney, Philip P. Moeszinger, W. C. Hassler, Paul A. Derge, E. E. Evans, J. E. Miller and J. R. Cauch. The following named passed licentiate examination: H. J. Wolf, F. W. Carlisle, E. H. Lewis, C. K. McDonald and B. E. Gey. The following named passed assistant examination: A. D. Hill, J. H. Prague, C. L. Caven, S. Sollenberger, H. C. Cox, G. L. Edelman, J. E. Campbell and W. J. McNeill. Registration is due May 5, 1894; delinquent, July 5. The fee for registered pharmacist is \$2; registered assistant pharmacist, \$1. The "Maze," a department store of San Francisco, having had the matter of selling pharmaceutical preparations brought to their attention as being illegal by the Board of Pharmacy, have ceased to retail such articles in the establishment.

Minnesota Board of Pharmacy, at its April meeting, examined sixty-seven applicants, and granted registration as pharmacists to: Frode Arneberg, Emil Anderson, Oscar Oberg, John Goldner, Ephraim Warner, Samuel M. Wendt, of Minneapolis; Frank R. Gallaher, Fred A. Munch, Sherman H. Brownlee, David Shesgreen, Jr., St. Paul; George W. Ittis, Chaska; William A. Kubat, Austin; Louis J. Lundemo, Morris; Willet H. Mosher, Duluth; Edwin J. Stormes, Osseo; Jeppa M. Palmquist, Tracy; Otto E. Fleischer, Fairbault.

Successful applicants for registration as assistant pharmacists were as follows: Herbert W. Hosmer, Frank G. Danielson, Edward A. Trommald, Richard T. Burke, David Gordon, Frank H. Sturgeon, Claus F. Ylander, of Minneapolis; Nathaniel W. Clark, Austin; Wallace F. Gow, Anoka; William S. Wygant, Excelsior; James W. Helsing, Melrose; George W. Meyer, Duluth; Ran-

son F. Pepple, Worthington; Fred H. Richman, Rochester.

One of the features of the examination was the use, for the first time, of the new prescription cases, which have been provided for the practical testing of the men. There were twenty of these cases, and each applicant for a license, as a part of his examination, was required to go to one of them and put up numerous prescriptions. Next meeting in Minneapolis, July 17. The Board recently commenced an action against T. W. Esterly of Minneapolis for violation of the pharmacy law. The case was stubbornly fought. Jury's verdict, guilty, \$50 and costs.

COLLEGES OF PHARMACY.

The Chicago College of Pharmacy held its thirty-fourth commencement exercises April 26, at the Grand Opera House. The valedictory address was by A. D. Thornburn, and the students were also addressed by F. P. Bodinson, Prof. E. M. Goodman and Prof. C. S. N. Hallberg. The Broth prize microscope was won by R. Breves, who, together with F. P. Bodinson, Willis Eugene Coolbaugh, Oscar Hallenberg, Adolph Onesime Kaczorski, William Arthur Stuchlik, John Everett Thomas, Albert D. Thornburn and Franklin S. Wilson, received honorable mention.

President Emil Thiele conferred degrees upon the following students: J. F. Anderson, G. W. Bohn, S. L. Caine, J. W. Chladek, C. C. Cook, C. E. Cress, E. L. Fitch, F. Hunsche, C. L. Krause, R. H. McKenzie, R. W. O'Brian, W. A. Plce, W. H. Rudder, O. U. Sisson, J. Stuchlik, A. D. Thornburn, F. B. Wendt, G. A. Wiley, E. C. Zobel, W. B. Behrens, L. O. Brechdwald, A. H. Christensen, H. A. Delfosse, H. E. Gross, P. Jacobus, J. A. Lorenz, W. M. Nachtway, G. H. Rahts, J. F. Sheficik, F. H. Spiller, W. A. Stuchlik, A. E. Trischmann, F. S. Wilson, F. P. Bodinson, R. Breves, T. F. Cannon, R. S. Collins, W. E. Coolbaugh, O. Hallenberg, A. O. Kaczorski, H. A. Nielson, G. S. Orth, C. A. Roark, F. Seward, C. L. Stillman, J. E. Thomas, H. H. Weissenborn, R. E. Yarnley.

Maryland College of Pharmacy held its forty-second commencement at Ford's Opera House, Baltimore, last month. The announcement of graduates was made by Prof. D. M. R. Culbreth, and the degrees were conferred by the president, Louis Dohme.

The college prizes, consisting of gold medals, were conferred by Prof. William Simon as follows: First prize, Walter Brown Carpenter; second prize, Oswald L. Schreiner; third prize, Samuel LeRoy Robinson; Simon prize, Oswald L. Schreiner; pharmacy prize, Walter Brown Carpenter; junior class prize, Lemuel Charles Ralford.

Henry P. Hynson awarded the alumni prize, a gold medal, to Oswald L. Schreiner. The Rev. Charles H. Cator made the address to the graduates, and Robert Grayson Loy delivered the valedictory. The exercises were interspersed with music by the Opera House orchestra.

The graduates were: Samuel T. Anderson, Jr., South Carolina; Louis M. J. Becker, Maryland; Frank Walker Bell, Virginia; James R. Bivens, North Caro-

linal Herbert Julian Brady, North Carolina; Robert Grayson Lay, Maryland; Martin L. Marsh, Maryland; Edgar Mumma, Maryland; H. Clay McElwee, South Carolina; John J. McInnity, Maryland; Walter Brown Carpenter, South Carolina; Francis J. Clements, Washington, D. C.; Frederick A. Dieterich, Maryland; J. William Dorman, Maryland; Robert L. Felts, Maryland; Samuel Lettroy Robinson, South Carolina; Julian H. Saenger, Louisiana; John W. Schneider, Maryland; Otto Schmitt, Maryland; Oswald L. Schreiner, Maryland; Henry Gann, Georgia; Arthur W. Griffith, Texas; Dorace H. Hayes, Maryland; Julian E. Kaufmann, South Carolina; Charles W. Kammer, Maryland; Charles Stevens, Maryland; William Brink Ten Eyck, New York; James L. Triux, Delaware; Harry C. Valentine, Maryland; Edgar Voeleker, Texas; Ernest A. Knorr, Maryland; William C. F. Lang, Maryland; J. Lewis Leih, Pennsylvania; John T. Watson, Virginia; J. Lewis Way, Maryland; Henry Zwanzger, Maryland. Special Graduate in Chemistry, James B. Watkins.

PHARMACEUTICAL ASSOCIATIONS.

Louisiana State Pharmaceutical Association met in annual session, May 1, at New Orleans, President P. A. Capadua in the chair, Mrs. E. Rudolf, secretary. The president's address congratulated the association upon its prosperity, spoke of the meetings and work of the A. P. A., and the International Pharmaceutical Conference, and particularly urged that fullest support be given to the proposed amendments to the pharmacy law, to come up later for discussion. The treasurer reported a balance of \$246.43. After some committee reports had been received the Committee on Legislation proposed several amendments to the pharmacy law, which were taken up and discussed at length. The amendments provide that none but registered pharmacists, or duly qualified assistants, under the supervision of a registered pharmacist, shall conduct a drugstore or put up prescriptions. Any person 18 years of age may be registered as assistant after two years' instruction from a registered pharmacist, and having passed examinations by the Board of Pharmacy. College diplomas may be accepted by the board at its option. Registration is made biennially; fee, \$1 for registered pharmacists, 50 cents for assistants. Failure to comply with this provision subjects the offender to a fine of \$5, which he must pay before reinstatement. Physicians who operate drugstores must register as pharmacists. The act shall not interfere with the manufacture of proprietary medicines, nor prevent keepers of stores or peddlers outside of a limit of five miles from a pharmacy shop, from dealing in the commonly used standard medicines, if they comply with section 5. Planters are allowed to furnish medicines to the hands employed by them, and to those leasing lands from them. The Board of Pharmacy shall consist of five members, appointed by the Governor from a list of ten names submitted by the State Pharmaceutical Association—three from the parish of Orleans, two from the rural parishes, to

hold office one, two, three, four or five years, the duration of each member's term to be decided by lot upon organization of the board. To fill the yearly recurring vacancy the Governor shall appoint one member from the names of two submitted by the association. Pharmacists shall label all packages of medicine in legible writing or printing. The label shall bear the name and address of the pharmacist, the name of the prescribing physician, and all drugs or medicines which are poisonous, when not ordered by a physician, shall bear on the label a skull and crossbones, and the word "Poison." Heavy penalties are prescribed for violation of any provisions of the act. The State Legislature will be asked to enact the proper legislation in these matters. At the second day's session the Committee on Pharmaceutical Education presented an interesting report, and much routine business was transacted. At the concluding session the following officers were elected: President, Dr. John Gazzo; First Vice-President, N. P. Roux; Second Vice-President E. Goodwill; Recording Secretary, Mrs. E. Rudolf; Corresponding Secretary, J. A. Legendre; Treasurer, E. Laimant; Executive Committee—G. W. McHugh, George Brown, W. M. Levy, Dr. E. U. Bourc and C. L. Keppler. The next meeting will be the second Tuesday in May, 1895.

Monroe County Pharmaceutical Association held a special meeting at Mandeville Hall, Rochester, N. Y., May 3. Rumor has had it for some time that a member of the association was supplying the Dake Drug Company (cutters) with patent medicines and other goods, and that this concern has been unable to purchase supplies since the Detroit Plan went into effect in February. The accused says that when he purchased his store it had the most dead stock of any store in town. Mr. Dake was the only druggist among eighty to welcome him and offer to help him unload this stock. He also said that his boy for the past two years had dally carried goods to and from the Dake Drug Company's store, and it was further explained that the exchange of goods was only on dead stock and not staple patent medicines, as the charge read. The association agreed, if the accused would furnish a list of his unsalable goods, the members one and all would do what they could to reduce it. It was decided that the prices on patent medicines were to be as published by the association in the daily papers. The cutter is being met on his own ground, and some thirty druggists combine to publish in the papers prices which are considerably lower than his advertisements quote. The leading sarsaparillas are sold at 55 cents, 100 three-grain quinine pills for 25 cents and all others at correspondingly low figures.

Illinois Registered Drug Clerks' Association held its second meeting April 21, at Horan's Hall, Halsted and Harrison streets, Chicago. Over 100 registered drug clerks were present, and the membership was increased. A constitution was adopted and the following officers elected: President—Fred Rudnick. First Vice-President—E. R. Bond. Second Vice-President—W. A. Stucklik. Third Vice-President—I. Platt.

Secretary—F. A. Lœmke.

Treasurer—W. T. Winters.

A special committee was appointed to select quarters for the organization in the lowtown district.

The new organization, which is the forerunner of a State association, including registered drug clerks in every city and town in Illinois, is for mutual protection and benefit. The first move to be made is to secure employment for all registered drug clerks in the city now unemployed, of whom, it is estimated, there are fully 100. An additional purpose of the organization is to secure representation for drug clerks on the State Board of Pharmacy. One leading object is to see that the pharmacy law be properly enforced.

To Members of the American Pharmaceutical Association:

The Scientific Section of the American Pharmaceutical Association urgently requests members to inform the committee as to the subjects upon which they will write, and to send their papers ready for printing to the Chairman, not later than June 30.

The Committee would suggest a number of papers upon the following: "Does practical experience with the New Pharmacopœia prove the processes therein contained to be the best?"

L. E. SAYRE, Chairman, Lawrence, Kan.

C. M. FORD, Secretary, Denver, Col.
F. S. HERETH, Associate Member, Chicago, Ill., Committee.

Ohio Pharmaceutical Association meets at Cincinnati, June 5-7. Morning and afternoon sessions on Tuesday and Wednesday; morning session Thursday. Reception Tuesday evening at Grand Hotel, concert Wednesday evening at Odd Fellows' Temple Theatre; boat ride to Coney Island on Thursday afternoon with banquet, etc. A. Wetterstrom, local secretary.

Missouri Pharmaceutical Association holds its annual meeting at Excelsior Springs, June 12-16. There are six prizes offered for papers on special topics, two for exhibits by retail druggists, and others for debates and special displays. J. C. Falk, chairman committee on papers and queries, 1112 Franklin street, St. Louis, will answer requests for further information.

Massachusetts Pharmaceutical Association will meet in annual session at Worcester, June 26-28. Interstate league matters will induce discussion.

Arkansas Association of Pharmacists will meet in twelfth annual session at Hot Springs, June 5-7. Arlington Hotel will be headquarters.

Kansas Pharmaceutical Association will meet at Salina, May 29-31. Reduced rates on the railroads on the certificate plan. Headquarters, National Hotel.

Colorado Pharmaceutical Association will hold its annual meeting in September in Pueblo. C. H. Wells, local secretary.

Minnesota Pharmaceutical Association will meet at Lake Minnetonka, Hotel St. Louis, June 12-13.

New York State Pharmaceutical Association meets at Saratoga Springs, June 26-28.

New Jersey Pharmaceutical Association meets at Asbury Park, May 24-25.

THE LOUISVILLE BOTANICAL CLUB.

The following paper was prepared by Mr. Addison Dimmitt, president of the Botanical Club, to be read at the annual meeting of the Kentucky State Pharmaceutical Association. Druggists will find it full of suggestions and good ideas:

The Louisville Botanical Club was organized Jan. 23, 1890. The object was to unite the pharmacutists of Louisville for their mutual protection and advancement. The work of this club was divided into three departments, viz., Social, Scientific and Commercial Interests. As the Commercial Interests is the topic most absorbing at this time, I will give as brief a sketch as possible, to do justice to the subject, to show how we have made our club what it is to-day, the most perfect local retail druggist organization in the United States.

The original membership list contained only 53 retail druggists. To-day we have 135, out of a total of 140 in our city; added to this we have 14 members from the wholesale houses, making a grand total of 149 members. The five druggists who are not members have agreed (and they live up to their agreement) to be controlled by all prices and regulations adopted by the Botanical Club.

We have never in our club made any distinction between the druggists who are members and those who are not. Our Price Schedule, Monthly Circular and Special Notices are sent to an in the city, thus keeping them posted as to any change in our schedule and all matters touched upon at our meetings. Our monthly circular letter calls the attention of the druggists to our next meeting, states the subject that will be up for discussion at that time, makes a brief mention of what was discussed at the last session and what action, if any, was taken. It also notes the changes in prices of drugs in our local market. By this method every druggist in the city is kept in perfect touch with all the workings of the club.

At the organization of our club the two following rules were adopted, from which we have never deviated:

First—Never to permit anything sectional or political to enter our ranks.

Second—Nothing could be added to our Price Schedule except that which has a fixed retail price, or, in plainer words, we should only control the prices on patent and proprietary preparations and mineral waters.

Our schedule of prices is based on the cost of the preparations, with few exceptions, which are noted in our published list. It places the price on a single package, or three or six of same kind. All soaps, perfumes and toilet articles are excluded from this list, as they are sold by dry goods houses. We have succeeded in establishing fixed prices with these dry goods people on these goods, and, though the prices are not full, yet they still leave the druggist, who may meet them if he desires, a small profit. We have a list of mineral waters covering every kind on the market, with price to consumer by bottle or by the dozen. This we have found very convenient. It relieves us from carrying an

excessive stock, and we can price it to customer and furnish him with it in an hour's time.

We have also adopted several other plans which have proved most excellent. They are as follows:

Night Calls (the following card was sent to all druggists)—"After July 1, 1893, the lowest charge that will be made for night calls will be 25 cents. This action is concurred in by the entire membership of the Louisville Botanical Club, which represents all the druggists of Louisville."

With the card the following explanation was sent: "Note—The object of this card is to do away with unnecessary and unprofitable night work. It will educate the public to the fact that a druggist must not be called except in emergencies. In case of charity and distress, the humane spirit of our profession has the right to assert itself, regardless of any restrictions."

Botanical or general trade mark. The following explains itself:

"Tack this up on your prescription case:
B O T A N Y C R E W X
1 2 3 4 5 6 7 8 9 0 Repeater.

This is to be used when asked to price a prescription, with the possibility of being taken elsewhere, and when giving copies.

"Always put an X under the price mark, thus:

$$\frac{Tn}{X}$$

which will indicate at a glance that it is the botanical or general trade mark."

The object of this is to do away with the practice of shopping with prescriptions. It is a very simple method, and is thoroughly appreciated by our members. By its use we are saved both embarrassment and money. Its effect on the public is good, as it increases their respect for us and our profession.

Discount to physicians of 30 per cent. This was adopted by the club to prevent any possible confusion or misunderstanding between our members. This applies only to regular practicing physicians and dentists, and only on the sale of patent or proprietary preparations.

Dead Stock—A list of unsalable patent or proprietary preparations is sent to our secretary, which he files for convenience of any member who may have a call for an old preparation. This is a good, practical idea, and every druggist avails himself of it.

The most important factor in the success of our organization is committee work, both standing and special. The President annually appoints ten standing committees. The utmost care is observed in selecting members who are qualified, and who will give this work the proper attention. Our object in having so many committees is to distribute the work, as well as to overcome the possibility of a few men controlling the organization, as is the case in most societies. The following are our committees and their respective duties:

Grievance Committee—To whom all reported violations of schedule prices on patent or proprietary preparations and mineral waters are referred. They investigate the matter at once, without using the name of the complainant, and report the result. It has been the experience of this committee that 95 per cent. of the complaints are due to falsehoods

or misrepresentations of customers, and the other 5 per cent. is due to young clerks or errors in marking.

Conference Committee—Whose duty it is to investigate all complaints from retailers of jobbing houses selling to consumers. Their work is done in a like manner to that of the Grievance Committee.

Advisory Committee—Who adjust all differences that arise between the dry goods houses, that sell toilet articles, etc., and the Botanical Club.

The remainder of our committees—Finance, Ways and Means, Membership, Legislative, Social, Scientific and Commercial Interests—indicate by their respective titles the duties of each.

During the Summer months we usually appoint a special committee to visit every druggist in the city, to discuss any important matters that may arise at that time, and to collect the dues in arrears. The idea is, in fact, to let them see they are not forgotten, and the effect is good.

Three or four times a year we have what we call a Social Session, at which we serve punch, sandwiches and cigars. Everything is informal, and we have found them very enjoyable. They bring the members together and give them opportunities of knowing each other, as well as discussing many matters of interest to all druggists. They have been the means, to a great extent, of establishing that feeling of confidence and good will which exists between the members of our club, and which is absolutely necessary to the success of any organization. Our cause has been materially assisted and strengthened by the hearty co-operation of the local jobbers. They are members, attend our meetings and aid us with their valuable suggestions. They further agree to place on the cut-off list any druggist in the city who does not live up to his obligations to the club. They fully appreciate the value of trade that makes a fair, legitimate profit on their sales, and puts them in position to meet their obligations at the end of each month. In return for the assistance they render us, we endeavor to confine our purchases to this market.

We are extremely proud of our club and the good it has accomplished in this short time. We have written this sketch by request, hoping it may prove an incentive to other cities and towns to fall in line. If it should bear fruit, be the means of establishing even a single club, then, indeed, would we feel we had not labored in vain.

But, remember these few points in organizing and developing your society: First, adopt a fixed policy (as was done by our club). Give every druggist the credit of being a man of honor, with a desire to do right. If he does not at once conform to the rules of your club, be patient and reason every point with him (the advantage is all on your side). Show him in a plain, forcible manner that it is detrimental to his own interest, as well as to his neighbor's, to cut prices. If you do not win him to your way of thinking the first time, go again and again, and you will find that right will win in the end.

Do not be influenced by mere hearsay against your brother druggists, but deal solely in facts. Do nothing in your club without first giving every member an opportunity of expressing himself on the subject. Never be arbitrary in your rulings or dictatorial in your manner. If these suggestions are acted upon, you will be surprised to see how soon good results will crown your endeavors, and you will shine, as our Botanical Club—a brilliant example of what can be accomplished by earnest effort and faithful work in a good cause. If any one wishes further information, or our Price Schedule, Constitution and By-Laws, we will be glad to mail them to you.

ORGANIZE! ORGANIZE!

Fellow pharmacists and druggists who have always been looked up to as leaders in your respective localities, now is the time to call together druggists in your vicinity and organize, hold a conference, inviting the wholesale druggists to meet with you, form a city or county club, get in every druggist, then join in a body the Interstate Retail Druggists' League, a national league that is growing fast, but we want you to help us to cover the whole United States. Just take a half or whole day's outing among the druggists of your locality, and have them sign a call to form a club, get all you can to sign, call the meeting, have the meeting, impress upon those who come the necessity for an organized effort not only to protect yourselves from the invasion of the cutter, if he is not already with you, but you need united action to uphold the standard and dignity of your profession. But our principal aim at present is to prevent cutting each other's throats by the underselling of our neighbors in our line; it is far better to take him by the hand and make a fast friend of him than an evil enemy; try it on; get them together, talk over trade matters and how best to improve them, and also our present standing as professional men. Look upward and onward to progress, not down to degradation and disgrace. Now is the time; the iron is hot in the East. Now let us have the West strike it and help us as they were wont to do only a year ago. Come out, you brave drug men of the Windy City and have something besides wind. Shall we have the support of the Western cities, as Cincinnati, Columbus, Indianapolis, Dubuque, St. Paul, Minneapolis, Kansas City, Omaha and San Francisco, that we must and shall have before we quit the game? Make a great effort to call a meeting after getting the signatures of the majority of your neighboring druggists; if first call should fail try again and you will have better success. My advice will be to report proceedings to drug journals only. Have all your members read all the drug publications at hand and keep posted. We are on the right train; get on board before you get left. Yours for profitable business,

A. O. HULL.

President Mortar and Pestle Club of Rhode Island.

TESTIMONIALS MOVING DAY NUMBER.

Detroit, Mich., May 1, 1894.

Editor Pharmaceutical Era.
We are in receipt of your Moving Day number. Allow us to compliment you on the same. It is splendidly gotten up, and certainly a credit to your enterprise. Very truly yours,

MERZ CAPSULE COMPANY.

Louisville, Ky., May 2, 1894.

Editor Pharmaceutical Era.
Your Moving Day number came promptly to hand, and one need but look on the second page of the beautifully lithographed cover and notice the profiles of The Era staff and be convinced at once that The Pharmaceutical Era is the brightest and most modern pharmaceutical journal published. My only regret was the absence of any Interstate Retail Druggists' League matter, since The Era was one of the principal factors in its organization. I hope, however, since The Era is so agreeably situated in the East, that we may have more of its valuable support. Wishing The Era and its staff a long and prosperous career, very truly,
ROBERT J. FRICK, Secretary I. R. D. L.

Leechburg, Pa., May 3, 1894.

Editor Pharmaceutical Era.
Always bright, new and spicy, but the Moving Day number of The Era, which I have thoroughly digested without the least depression, stands in the front rank of pharmaceutical journalism. Long may it live to benefit the fraternity and continue to prove a financial blessing to its proprietors. Very truly,
E. E. HYER.

St. Paul, Minn., May 2, 1894.

Editor Pharmaceutical Era.
Allow me to compliment you on your May 1st number, at hand to-day. I consider it well worth preserving, not meaning to say, however, that I do not preserve all the issues of your valuable journal. That your late move may prove a grand success is the wish of one of your late subscribers.
D. SHESGREEN, JR.

Chicago, Ill., May 1, 1894.

Editor Pharmaceutical Era.
The Moving Day number is far ahead of any drug publication yet issued. Many wishes for success.

A. D. THORBURN.

Belton, Texas, May 5, 1894.

Editor Pharmaceutical Era.
Allow me to congratulate you upon the appearance of your Moving Day number of the Pharmaceutical Era. I think it by far the most handsome drug journal it has ever been my pleasure to receive. Upon tearing off the wrapper, one's first impression is that he is opening the Thanksgiving or holiday number of some of the great magazines—Harper's, Leslie's or the Century. Your outside cover is extremely handsome. When a journal exercises such great care to please its readers, I think it nothing but right to tell it so, "right in the face." A kind word now and then hurts no one, and I think such words are well bestowed upon your May 1st edition. Let the good work go on.
A. J. EMBREE.

Detroit, Mich., May 8, 1894.

To the Editor of The Pharmaceutical Era.
Your "Moving Day Number" of The Pharmaceutical Era is a beauty. Very truly yours,
ACME WHITE LEAD AND COLOR WORKS.

Lynchburg, Va., May 8, 1894.

To the Editor of The Pharmaceutical Era.
Permit me to extend my cordial greetings upon your coming East and bringing The Era with you. If the "Moving Day Number"—which I have just read—is an index of what your every-day numbers are to be, you will deserve and receive the thanks and congratulations of pharmacists and scientists everywhere, for publishing the best-arranged and most varied assortment of useful information, to say nothing of your able editorials, and withal the handsomest journal in the United States. Yours respectfully,
E. A. CRAIGHILL,

Piedmont Drug Mill Company.

Minneapolis, Minn., May 3, 1894.
Editor Pharmaceutical Era.

The May 1 number of The Era is received, and is a marvel of beauty and enterprise, and one would think from its artistic appearance that we were still illustrating World's Fair days. I congratulate you on your success, and know your efforts will be marked and appreciated by the trade everywhere. Sincerely and truly,
A. B. MERRIAM, Secretary N. W. D. A.

St. Louis, Mo., May 3, 1894.

Editor Pharmaceutical Era.
I cannot allow the reception of your "Moving Day" number to pass without personally congratulating you upon it. As to the business character of the change I need hardly speak. From all quarters there has come to you such unqualified commendation that I could hardly add more. Just imagine me saying all that all have said in approval, and besides all that can be said, and I'll not gainay anything. You have taken your journal geographically where it long has been intellectually and commercially, and more than ever I am sure you can say:
"No pent up Utica contracts our powers, But the whole boundless continent is ours."

I make my salaam in profound admiration, and trust you will flourish to the end.
FRANK A. RUF,
President Antikamnia Chemical Company.

Hawley & Hoops, 257-271 Mulberry street, New York, are extensive manufacturers of chocolate, and their advertisement in this issue shows what they have of special interest to the drug trade. Their Extract of Cocoa, or essence of chocolate, is just the thing for making syrups for soda fountain use, and a trial of it will convince the druggist that it is both economical and satisfactory.

Every druggist is interested in new articles of merit, and in this category is included "the latest in cough gums," advertised by Curtis & Son, Portland, Me. Their Fir Balsam Chewing Gum retains all the medicinal properties of the gum and it is presented in novel packages with perfect chewing qualities and delicious flavor. Let your next order for chewing gum include a trial box of Curtis & Son's Fir Balsam Chewing Gum.

MAGAZINES.

The following is a brief mention of the important features of the May magazines:

The North American Review contains two articles of timely interest upon the liquor question, one by Governor Tillman of South Carolina, entitled "The Way to Regulate Liquor Selling," and the other by the Bishop of Chester, entitled "Successful Public House Reform." Political affairs receive recognition in Representative Bland's paper on "The Hopes of Free Silver;" Sir Charles W. Dilke's "Lord Rosebery's Administration;" Edward Porritt's "Bargains in Parliament," F. L. Oswald's "Kossuth's Predictions." The religious topics embrace "Hostility to Roman Catholics," by George Parsons Lathrop and the Bishop of Albany, and "The Unknown Life of Christ," by Edward Everett Hale. Other articles of interest are, "The New Woman," by Ouida; "The Man of the Moment," by Sarah Grand; "A National Health Bureau," by Surgeon-General Sternberg; "Helping Others to Help Themselves," by Nathan Straus; "National Bank Examiners Criticized," by J. M. Graybill; "Anarchy and the Napoleonic Revival," by Karl Blind, and "The Value of Dialect," by Prof. Wauchop.

The beginning of the athletic season and revival of Summer sports make the current number of Outing particularly acceptable. The contents are as follows: "Sketching Among the Crow Indians," "Sharp Time on the Mattawa," by S. C. Kendall; "The Mail Carrier's Daughter," by Jessie F. O'Donnell; "An Angler's Dilemma," by G. C. Audsley; "Spring Snipe Shooting," by Ed W. Sandys; "A Parisian Fishing Ground," by R. F. Hemenway; "A Plea for Association Football," by S. J. Watts; "Afoot in the Hartz," by W. H. Hotchkiss; "Lenz's World Tour Awheel," "A May Day's Trout," by H. P. Beach; "The Club Cup," by W. E. Baldwin; "Combination Rowing and Sailing Boats," by Capt. A. J. Kenealy; "A Memory of Mountain Trout," by R. L. Warner; "Touring in Europe on Next to Nothing," by J. P. Worden; "The Michigan National Guard," by Capt. C. B. Hall, and the usual editorials, poems, records, etc.

The Atlantic has for its principal features "From Blomond to Smokey," by the late Frank Bolles; "The Henry," an article by Prof. T. C. Mendenhall, upon the newly chosen term of electrical measurement; "Three Commandments in the Vulgar Tongue," by Gilbert Parker; "Egotism in Contemporary Art," by Royal Cortissoz; "Where," by R. H. Stoddard; "The Queen of Clubs," by Eliza Orne White; "The Ethical Problem of the Public Schools," by William Frederick Stocum, Jr.; "Henry Vaughn, the Silurist," by Louise Imogen Guiney; two papers upon the late Francis Parkman, by his fellow historians, Justin Winsor and John Fliske; "The Encyclical of Pope Leo XIII.," and installments of the serials, "Phillip and His Wife," and "Talks at a Country House."

The Century begins in the May issue the first installment of what promises to be a notable series of articles recounting

the adventures of two American students during their journey on bicycles from Constantinople to Peking. William Henry Bishop continues the story of his "Hunting an Abandoned Farm in Upper New England;" Brander Matthews writes of "Bookbindings of the Past." Other articles of more than passing interest are: "Contrasts of English and American Scenery," by E. S. Nadai; "The Heart of the World," by W. P. Foster; "A Loan of Half-Orphans," by Thomas A. Janvier; "Old Dutch Masters—Adelbert Cuypp," by Timothy Cole; "The Kearsarge," by James Jeffrey Roche; "Their Exits and Their Entrances," by George A. Hibbard; "Love and Maytime," by Nathan Haskell Dole; "Witherle's Freedom," by Cornelia A. Pratt; "Capture of the Slave Ship Cora," by Wilburn Hall; "Zmai Iovan Ivanovitch, the Chief Servian Poet," by Nikola Tesla; "Paraphrases from the Servian," by Robert Underwood-Johnson; "M. Pate's Only Infirmary," by Richard Malcolm Johnston; "The Imitative Functions and Their Place in Human Nature," by Josiah Royce, and installments of the serials, "Pudd'nhead Wilson," by Mark Twain, and the conclusion of "Coeur d'Alene," by Mary Hallock Foote.

The management of St. Nicholas has hit upon an excellent plan for impressing historical incidents upon its wide circle of young readers, as is shown by the excellent serial, "Decatur and Somers," by Molly Elliott Seawell, the initial chapters of which are given in the current number. Young musicians will be interested in "Ancient Musical Instruments," by Mrs. H. S. Conant; Charles Henry Webb writes of "The Beautiful Ballad of Lady Lee," W. T. Hornaday of "A Few of Our Fur-Bearers;" Dr. Charles A. Eastman continues his "Recollections of a Wild Life;" Palmer Cox conducts the Brownies through New York State on their trip through the Union; Malcolm Douglas writes of "A Model Speller;" Brander Matthews of "Washington Irving;" Charles G. D. Roberts of "Peril Among the Pearls;" Garret Newkirk includes Maine and New Hampshire in a series of "Rhymes of the States;" Agnes Lewis Mitchell tells of "Finding a Treasure," and installments of the serials, "Jack Ballister's Fortune," by Howard Pyle, and "A Four-Leaved Clover," by Mary Hallock Foote, are given.

Popular Science Monthly contains two notable articles of more than ordinary interest to the student in chemistry. One is entitled "Ancient and Mediaeval Chemistry," by M. P. E. Berthelot, and the other is "Waste Products—Cottonseed Oil," by Frederic G. Mather. Other articles of interest are "The Guests of the May-flower," a description of the insects which visit this handsome flower, by Prof. C. M. Weed; "Up the Chimney," by Frank Bolles; "Frost Forms on Roar Mountain," by Mrs. H. R. Edson; "The Ice Age and Its Work," by Prof. A. R. Wallace; "Cause and Effect in Education," by C. H. Henderson; "Economic Uses of Non-Edible Fish," by R. F. Walsh; "Peculiar Sound Effects," by A. A. Knudson; "Religious Belief as a Basis of Morality," by Prof. E. P. Evans; "The Sleep of Mollusks," by Charles T. Simpson, and sketch of Sir Joseph Henry Gilbert, with portrait.

MARKETS.

The fluctuations noted in this market report are those affecting goods in original packages and jobbing lots. A complete price list, showing quotations as made by jobbers to retailers, will be found upon another page under the head of "Prices Current."

Advanced—Opium, Balsam Peru, Blue Vitriol, Corlander Seed, Gum Chicle, Gum Kino, Gum Benjoin, Lycopodium, Menthol, Oil Anise, Quicksilver, Spermaceti, Mexican Sarsaparilla, Tonka Beans.

Declined—Balsam Flr, Caffeine, Codeia, Ergot, Gum Tragacanth (Turkish), Golden Seal Root, American Saffron.

New York, May 10, 1894.—A moderate degree of jobbing activity during the period under review has given the general market a somewhat more animated appearance, and a few of the larger dealers, after of April is fully abreast of the corresponding period last year, and the result has been the imparting of a more confident and hopeful feeling concerning the future. Others, however, are still disposed to report continued dullness, although even with them, the apparently discouraging condition of affairs may be, to a large extent, imaginary, as the fact remains that a liberal amount of stock has been absorbed by the filling of numerous small orders. Another encouraging feature is found in an improved demand for large parcels of several commodities in this department of trade, with values showing a hardening tendency, while the majority of declines are of only minor consequence. Evidence is also furnished showing a slight revival of speculative interest in a number of articles, mainly due to the extremely low prices reached, but nothing has yet been done to materially disturb the legitimate movement into channels of consumption, and the success or failure of the various ventures is largely dependent on influences not yet developed. The prolonged agitation concerning the proposed changes in the tariff law continues to occasion suspense, but the intense feeling of distrust which formerly existed is being gradually eliminated, and the final outcome of the bill will undoubtedly prove to have been liberally discounted. Meanwhile, there is little if any disposition to anticipate the future, and there is not likely to be any general replenishing of depleted stocks until the tariff question is definitely settled. The financial situation continues of a satisfactory character.

OPIMUM—Has recovered from the depressed condition previously noted, and prices have improved to the extent of about 10 cents per lb., but within the past few days the market has developed an unsettled condition, owing to a proposal by the Senate Committee to place the article on the free list in the new tariff bill. As a consequence, buyers have withdrawn and quotations are nominal in the absence of demand.

POWDERED OPIUM—Has remained dull and prices have shown no quotable change, mainly owing to the fact that the declines have not been in proportion to the recent rapid fall in values of the gum.

MORPHINE—Deliveries to dealers having contracts with manufacturers have

abundantly supplied the market, and while Opium continued to decline, some effort was made to force sales by making concessions, but since the recovery in Opium a steadier feeling has prevailed, and full previous prices are again demanded.

QUININE—Manufacturers' prices remain unchanged, but the tone of the market indicates increasing firmness, and the bulk of the stock in second hands is held with considerable confidence. The consuming demand has been fair, and a few good-sized parcels have been taken by pill-makers, but otherwise there are no noteworthy features.

ARSENIC—The stock of White was materially increased by liberal arrivals, and values receded a fraction, but it subsequently transpired that the quality was not up to standard, and prices of prime grades quickly recovered. Saxony Red's is in light supply, but additional stock is expected shortly from primary sources, and an easier feeling is manifest.

BALSAM COPAIBA—Prime quality of all varieties has been finding a good outlet for consumption and with stocks in first hands all absorbed by dealers, a firm feeling prevails, but no changes of consequence have occurred in values.

BALSAM FIR—The market for Canada has continued to rule easy, under the influence of favorable reports regarding the new crop, which promises to be large. The demand has been only moderate, and a further decline of 5 cents per lb. has failed to stimulate interest on the part of consumers.

BALSAM PERU—Stocks have been steadily diminishing, both here and abroad, and a corresponding hardening of values has resulted. The spot supply is closely concentrated, and holders' views are 10@15 cents higher, with offerings limited to actual current necessities of the consuming trade.

BALSAM TOLU—Has met with a fair demand from consumers, and a steady feeling is manifest on the part of sellers, but there is no quotable change in prices.

BLUE VITRIOL—Is in fairly active request, and a fractional advance is noted, with holders indifferent sellers.

CORIANDER SEED—All scattering lots have been taken up, and the entire limited stock is closely concentrated in few hands, and prices have been advanced 1@1-4 cents per lb., with the tone of the market strong, and still higher figures anticipated.

CHILE—Has met with an active inquiry, resulting in liberal purchases by chewing gum manufacturers, and the balance of the available stock is held firmly at an advance of about 2 cents per lb. Advices from Mexico indicate that the bulk of the present season's output has gone forward, and as future shipments will be light, the outlook favors increasing firmness.

CHLORATE OF POTASH—Has ruled dull, and with stocks large and part in the hands of weak holders, the market is more or less unsettled, with the tone easy under pressure to realize.

CASCARA SAGRADA—Has been moving quite freely into consuming channels, particularly prime old, which is in very much reduced supply, and the small parcels remaining are held at slightly higher

figures. There is plenty of new available, but it is moved with difficulty, as consumers give old the preference.

CAFFEINE—Is quoted lower for all sized parcels, with current trading of average volume.

CHLORAL HYDRATE—Reports were had made a general reduction in prices, but the decline had reference only to 1,000-oz. parcels, the smaller lots usually taken by consumers being firmly held at old figures.

CODEIA—There have been two declines during the interval since our last report—one of 10 cents and another of 15 cents per oz. on all sized packages.

COD LIVER OIL—There has been no further quotable change in values of jobbing quantities of the more desirable grades, but inferior or less popular brands have receded slightly and show a lower range. The situation abroad is practically unchanged, and dealers here in want of stock have sent over cable orders for several hundred barrels, which seems to indicate that recent efforts to break primary markets have been unsuccessful.

ERGOT—Is slow of sale, and with keen competition between holders of consigned parcels, the market has a weak tone, with values lower for all varieties.

GUM TRAGACANTH—Turkey grades are about 5 cents per lb. lower, but other varieties are unchanged, and a fair general jobbing movement is reported.

GUM KINO—Is scarce and firmer, with a good consuming inquiry, and quotations are 20 cents per lb. higher.

GUM BENZOIN—Recent transactions have materially reduced the spot supply of the better grades, and holders have advanced their views about 2-2 cents per lb.

GOLDEN SEAL ROOT—Has met with very little attention, and the absence of important demand has influenced an easier feeling and a decline of about 1 cent per lb. in quotations.

INSECT FLOWERS—Prime quality closed Flowers have been in active request, principally from consumers in Canada, and liberal purchases have reduced the available supply to exceedingly narrow proportions, and values are steadily improving. Powder is also moving rather freely, with prices of the better grades firmly maintained.

JALAP—The weakness in this article seems to have disappeared, and a better feeling prevails throughout the market, mainly the result of purchases by dealers of several parcels of new crop from first hands. The bulk of the current season's output has come forward, and the proportion of desirable grades is rather moderate.

KAVA KAVA—Has been in better demand, chiefly for export, but at concessions from previous ruling quotations and the tone of the market is easy.

LYCOPodium—Is firmer, under an improved demand from the consuming trade, and all brands are about 2 cents per lb. higher.

MENTHOL—Is held with increased steadiness, and holders of the limited spot stock are quoting slightly higher figures.

MUSTARD SEED—California varieties are hardening in value, and a fractional advance has occurred, owing to continued

unfavorable reports from the Pacific Coast regarding the new crop, and a liberal business has been done for consumption.

OIL OF ANISE—Has shown increased activity, with the market stronger in tone, based on advices from primary sources of supply of higher values and probable scarcity. The advance here is about 5 cents per lb.

OIL PEPPERMINT—Is moving rather more freely in a jobbing way, and the feeling among holders is decidedly firm, with higher prices anticipated for all descriptions.

PRUSSIAN POTASH—The combination prices for Yellow are unchanged, but deliveries on contracts made previous to the advance are offered from outside holders at concessions of 21-2@3 cents per lb.

PARIS GREEN—On April 21 the combination of manufacturers announced the following schedule of prices:

In Arsenic kegs or casks.....	20
Kings, 100 to 175 lbs.....	20 1-2
14, 28 and 56 lbs., iron cans	
or bxs., net weight.....	22
2 to 5 lb. paper bxs.....	22
1 lb. paper bxs.....	22 1-2
1-2 lb. paper bxs.....	24 1-2
1-4 lb. bxs.....	26 1-2
One to 5 lb. tin bxs. put up to order at an advance of 1-2 cent per lb. over paper bxs. or similar sizes.	

TERMS—Payable July 1, 1894. Discount, 6 per cent, per annum for unexpired time.

REBATES—To purchasers of 10,000 lb. or over, during the season, 3 cents per lb.; 4,000@10,000 lb., 2-1-4; 2,000@4,000 lb., 2; 1,000@2,000 lb., 1-1-2; 500@1,000 lb., 1.

QUICKSILVER—Is 2@2-1-2 cents higher, in sympathy with a corresponding advance in the London and San Francisco markets, and sales are reported at the improved prices.

SENEGA ROOT—Has been moving rather freely on export orders, and the reduced spot supply is held with considerable firmness, but values show no important variation.

SAFFRON—The principal holders of American have reduced prices 3 cents per lb., and the outlook favors still lower figures in view of the near approach of new crop.

SPERMACETI—Has continued to harden under a steady demand from abroad and further advances, aggregating 2-1-2 cents per lb., have occurred since our last report. The spot stock is exceedingly small.

SARSAPARILLA—Mexican is firmer and about 1-2 cent per lb. higher, mainly in consequence of limited available supplies, the stock in first hand being exhausted.

TONKA BEANS—The Angostura variety has met with considerable attention from consumers, and large sales are reported, with a subsequent advance in prices of about 15 cents per lb. Advices from primary markets report the new crop a failure.

W. H. Bowdler & Co., Boston, advise that Crude Beeswax is higher and in good demand. W. H. B. refined continues at old prices as long as present stock lasts. Carnauba Wax is easier, with large lots at 10c. Ozokerite is unchanged.



LUCIUS ELMER SAYRE.

PROF. L. E. SAYRE was born Nov. 2, 1846, in Bridgeton, N. J. At the age of 16, after completing a common school education, he entered as an apprentice the drug store of Robinson & Whitaker of his native city, this establishment at the time being one of the principal ones in that portion of the State. He served two years of apprenticeship and then removed to Philadelphia, where he attended a course of lectures at the Philadelphia College of Pharmacy, graduating in 1866. During his college course, under special instruction, he took up the study of language, thus developing a taste for Latin, which has, in recent years, led to the production of the work, "Latin in Pharmacy and Medicine," suggested and planned by him, but written by a colleague in the University of Kansas, Prof. D. H. Robinson, professor of Latin. After graduation an advanced course in botany was pursued at the Polytechnic College of Philadelphia, and at the same time special study of therapeutics was followed, under tuition of a physician. About this time he entered the store of Frederick Brown of Fifth and Chestnut

streets, Philadelphia, where he was employed as superintendent of the laboratory. From this establishment he went to Henry C. Blair's Sons, Eighth and Walnut streets, where for ten years he was employed as chief clerk or manager. His first enterprise on his own account as a druggist occurred in 1873, at 18th and Market streets, where he associated himself with Jos. P. Remington, who afterward retired from business life, the intention being to manufacture in a large way special pharmaceutical chemicals and preparations.

As one of the products of the house and one of the first of the kind on the market may be mentioned the scale or "labeled" pepsin. During a large part of this latter period he was associated in the Philadelphia College as one of the corps of instructors, or quiz masters, his special branch being that of materia medica.

In 1880, the young man was elected lecturer on pharmacy and demonstrator in the pharmaceutical laboratory in the Woman's Medical College of Philadelphia. In 1885 Prof Sayre removed to Lawrence,

Kan., having been made dean of the School of Pharmacy of the University of Kansas, where he has since remained and where he still lectures on pharmacy and materia medica.

Prof. Sayre has always been an active and aggressive student and a prolific writer. For five years he was editor of the Druggist's Journal, Philadelphia. Of books he is the author of "Organic Materia Medica and Pharmacal Botany," a second edition of which is soon to appear, of "Essentials of Pharmacy," in its second edition, and his name appears in conjunction with that of the author of the "Latin Grammar of Pharmacy" already referred to. He has also been a constant contributor to pharmaceutical journals. He has always been a close student of pharmacy and an acute observer of pharmaceutical practice as it is carried on in this country and abroad. For the purpose of broadening his knowledge and making more extended observations, he has made extended tours in Canada and Europe, becoming familiar with teaching institutions and business establishments.

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EDITORIAL.

JOHN S. MOFFITT.

In the death of John S. Moffitt of St. Louis has passed away one of the younger men but one of the best known in the wholesale drug trade. His entire life has been one of training for the position which he had attained, and which he administered so ably. Mr. Moffitt was a man of sterling business worth of attractive personal character, and his loss will be sincerely felt. The confidence and respect of the drug trade were his, enabling him to build up a large and successful business, and his personal popularity was something unusual. Active in business and social circles, his influence was felt, and his removal will be sincerely deplored. His face will be missed from many a gathering, particularly in the N. W. D. A., and in the State Pharmaceutical Association of Missouri. We would speak a parting word of eulogy of his character, of regret for his early death, and of heartfelt sympathy for his immediate family and relatives.

THE SODA SEASON.

Soda water is king, or very soon will be, though its reign is short and intermittent. There is more or less demand the year round for the refreshing beverages from the soda fountain, but the months of June and July in most sections of the country are relied upon to return the greater portion of the yearly receipts from this source. Perhaps this period may be extended into August, but, notwithstanding, the season is short and every opportunity must be taken advantage of if it is to be made profitable financially. The druggist who has not yet cleaned up his fountain and received his supply of material, should set about it at once or he will find himself unprepared for the sudden demand with which the season generally opens.

We are sure the majority of soda dispensers have already done this, but it is well to admonish the laggards. It is important also that if any specialties are to be presented for public approval they should be brought out with the opening of the season, and the demand for them established as soon as possible, if a profitable business is to be expected. The public is a fickle public, always wanting something new, and the poet's dream of last year must give place this Summer to other fancifully named concoctions. Of course the bases of all syrups and flavors of the fountain are the same, but in their combinations

lies the production of taking specialties, and we presume, many a druggist has been cudgelling his brain for ideas in this direction. The city druggist will reap his harvest before the exodus of the people to the woods, the mountains, the lakes, the seashore, and the next two months will witness the usual Summer activity around the fountain.

EXAMINATION QUESTIONS.

In this issue we publish answers to series No. 3 of our examination questions. Not so many succeeded in answering the required number of questions as in preceding series, and this is no doubt due to the fact that the questions were considerably more difficult than their predecessors. One pertinent point brought out in the competition is that with some contestants there appears considerable lack of knowledge of mathematics, particularly of the principles of proportion and percentage. It may be said right here that in some of our colleges of pharmacy far too little attention is given to this subject, and almost no instruction in the calculation of the percentage composition of chemical formulas. In some of these series of answers, though the work in the main was creditable, the replies to the questions involving these calculations showed a lamentable ignorance in the direction indicated. A practical working knowledge of percentage and proportion is most essential, and we would repeat advice which these pages have borne frequently—that the young man who is studying to qualify himself for pharmacy should be sure that he has a well grounded acquaintance with mathematics so far as the branches named are concerned. The problems presented in the series were not exceptional ones, rather were of a kind which very frequently present themselves for solution, and the young pharmacist should be sure that he is competent to work them out. The comments upon the replies we have endeavored to make of an educational nature, and the student who is a little rusty in the application of mathematics to chemistry and pharmacy will find the explanations given of considerable service. We would again urge that mathematics in particular be not neglected in whatever course of study is mapped out.

A new set of questions is offered, which, though considerably more difficult than preceding ones, is by no means unreasonable, and in no respect catch questions. They require for correct answers thorough knowledge of certain fundamental principles. While we have been exceedingly gratified by the number of responses received, we wish to enlist still greater interest in this department. Whoever will endeavor to make satisfactory reply to any of these series will find that it will require some little study, some little work, however well posted one may be, and those who have not a well-arranged and classified store of information will find that systematic study is necessary for the mastery of the various branches indicated by the questions. We confidently expect an ever increasing interest in the department, and urge young men that they make it a point to answer

the questions of each series to the best of their ability. This work will provide a stimulus to study, and will excite interest which can be aroused in no other way.

THE ALCOHOL TAX AN INCOME TAX.

Mr. Ingram, in his letter on another page, presents the alcohol tax question in a light in which it doubtless has not appeared to the majority of retail druggists. He argues that any increase of tax on alcohol as proposed would fall upon the retailer alone, for, while paying a greater price for the article, he could not, under existing trade conditions and habits, correspondingly raise his selling price to customers. His margin of profit would thus be lessened, equivalent to a direct tax upon him. The Era has always been outspoken in advocating a reduction of the internal revenue tax on alcohol, believing that whatever be the necessities of Government for a working income, this should not be raised by taxing a product so essential to the development of our home industries as is alcohol. The tax should rather be left upon articles which are luxuries or which can better stand an increase. Mr. Ingram proposes that this be accomplished by a tax on beer, and shows how the cost of beer to the consumer will be almost inappreciably advanced, and at the same time the revenues of the Government be greater than were the proposed tax on alcohol to become a fact accomplished. Though very many, doubtless, will not altogether approve of his substitute proposition, there is no doubt that the retail drug trade requires no argument, no further demonstration, to prove that it is not desirable or just to raise the cost of alcohol.

It is proposed that each druggist become a committee of one to prevent the enactment of the proposed regulation, but we would not attempt to prophesy the measure of interest which the druggist will evince. This alcohol question has been presented in innumerable lights, and up to the present there has been no concerted action of the retail drug trade to rid itself of a burden which all assert is unnecessary. The wholesale trade has made spasmodic attempts in this direction, but it requires for success a union of effort and a vigor which have not yet been attained. The manufacturing chemist, the manufacturing pharmacist, the retail druggist, denounce the revenue tax on alcohol as unnecessary and unjustly burdensome. Why cannot all these branches work in union and harmony to the end that this necessity may be obtained at a fair price commensurate with its cost of production. We commend Mr. Ingram's article to careful consideration, believing that his manner of presenting the case will, from its very novelty, occasion interest and prompt to active exertion to remove this heavy burden upon the trade.

THIS SUMMER'S CONVENTIONS.

A few of the State pharmaceutical associations hold their annual conventions during the early Spring or even midwinter, but the majority of them occur within the months from June to October. June and July seem to be the favorites, so that

within the next few weeks the druggists of many of our States will take their annual outing in attendance upon the meeting of the State Pharmaceutical Association. These outings are all the vacation that many a hard-working druggist obtains, and they are, as is proper, made the occasion of invigorating recreation as well as of professional and scientific instruction. Attempts have been made in some of the associations to abolish the amusement feature, but the result has been such a storm of protest and the near prospect of a great falling off in attendance that the move has as a rule proven abortive. We believe that all work and no play makes Jack a dull boy, and the druggist who works hard the year round is certainly dull enough, even without the three or four days for rest and recreation afforded by the State Association Convention. We are believers in these associations, and only wish we could find arguments and proofs forcible enough to bring the entire trade to our way of thinking. The association gathering affords an opportunity not alone for amusement and relaxation from business restrictions, but brings the druggist into contact and communication with his fellows, whereby he may become possessed of new ideas, have his faculties refreshed and sharpened, and return to his business with an interest and ambition calculated to make their possession felt for many a day, to the improvement of his business and to his own professional development.

In the selection of meeting places and in the arrangement of the programme of exercises, business and social, let the fact be well kept in mind that the association meeting is primarily an occasion when the druggist can get out of the tiresome rut and daily routine and find that change which is to be to him a tonic and a stimulus to better work. There is a certain amount of monotonous routine business which must be transacted by the association, but in addition there should be arranged programmes of discussions and the reading of papers from which the members gain many a hint to be put later to practical application. We would urge the druggist to leave his store in the charge of his clerk and take his wife and family to the annual meeting. Go prepared to speak, advance your own ideas and beliefs in the meeting room, and take a fishpole with you, too. We have not spoken of what may be accomplished by the association itself, as a body of druggists in union, for the value of organization has been dilated upon for years in the pharmaceutical journal and in the convention hall. We have preferred to tell the druggist what a good time he misses by staying at home. If you cannot go yourself, however, give your clerk a vacation and urge him to attend.

LET THE GALLED JADE WINCE.

It has been the boast of the cutter that no plan could be devised, or, at least, enforced, which would prevent him from obtaining all the supplies of proprietary medicines which he desired for the conduct of his business. However this may

be, to what extent it is true, it would seem, to judge from the suit brought against the wholesale druggists of Cincinnati by the firm of John D. Park & Sons Company, that it can be made very difficult to procure these articles. We publish the full bill of complaint of this firm, in which they allege unlawful restraint of trade on the part of the Cincinnati wholesalers and the National Wholesale Druggists' Association. While, of course, it is impossible to predict the ultimate decision in the case, it surely is one of great interest and importance to the drug trade. John D. Park & Sons Company have for years persistently refused to adopt any measures for the protection of the retail drug trade against price cutting on proprietary medicines. They have been the depot of supply for cutters throughout the entire country. How they have been able to secure these goods has been a matter of conjecture. But undoubtedly they have, through numerous channels, the retailer himself, perhaps, not being averse to turning a penny of profit, if there be no danger of getting found out, but now it would seem that there is some difficulty in this respect, and naturally the firm are making strenuous objections. The question to be settled is whether or not they are right in the position they assert, and whether they can prove unlawful combination exerted in restraint of their business. They assert that members of the N. W. D. A., by refusing to sell proprietary articles of various manufacturers below certain figures, have caused these manufacturers to fix upon and maintain definite rates outside of which the goods are not to be supplied. Nothing unlawful in this, it would seem, for certainly the wholesale drug trade cannot be compelled to handle a certain article unless they desire, and just as certainly the manufacturer has a right to put his own price upon his goods and sell to whom he pleases.

The plaintiffs object to the cut-off feature, which consists in the publication of a list of the firms and individuals who violate the terms of sale on proprietary medicines, and to whom manufacturers and wholesalers refuse to sell goods. This is a business principle, the application of which is not confined to the drug trade alone, for numerous cases can be cited where the manufacturer of a certain article has refused to sell to those who will not maintain stipulated prices. Is this unlawful? The real legal point involved, if there be any legal point at all, appears to be the exertion of a united influence to prevent the firm in question from obtaining supplies through any source, and the legality of the publication of their name on the cut-off list. Has the N. W. D. A. the legal right to request of manufacturers and wholesalers that their firm be not supplied, and, further, that it be hindered in all possible ways from obtaining the goods? Is this unlawful restraint of trade? The result of the litigation will be awaited with interest, for it is the first time that the matter has been brought to a decided issue, and the decision will establish a precedent for the future.

THE A. P. A. PROCEEDINGS.

The volume of Proceedings of 1893 is a most valuable contribution to pharmaceutical literature. Much of the report of the proceedings themselves is, of course, of but transitory interest, though the suggestions and arguments of the speakers in the various discussions in the sections on scientific matters, education, legislation, etc., are indicative of general progress and highest thought along these lines. But it is especially of the value of that portion of the volume devoted to the report on the progress of pharmacy of which we would speak. To the student of pharmacy and to the active business druggist this report would seem almost indispensable. It is an epitome of the world's work in pharmacy for the preceding twelve months, and this year is arranged in accordance with a plan which makes it more than usually comprehensive and serviceable. These remarks are not intended for a review of the work as generally understood by the term book review, but as an expression of our belief that no more valuable investment can be made by the druggist than that he makes in joining the American Pharmaceutical Association and becoming the yearly recipient of the volume of proceedings. This report on pharmacy is worth many times the annual cost of membership. It does not take the place entirely of pharmaceutical and chemical journals, but it is a key to the periodical literature of the profession. In the present volume is presented an exhaustive list of new remedies, with greater or less detailed description of their methods of production and their physical and therapeutical properties. A complete set of the proceedings of the association may be obtained for a very small sum, and once in one's possession, they would not be dispensed with under any consideration. The volumes of late years are intrinsically worth more than the annual dues even in this day of cheap printing, and, without appealing to the druggist's professional sense, his commercial instincts would find gratification and his business would profit from ownership and use of the work.

THE RETAIL DRUGGIST AS AN ADVERTISER.

A letter presented in our correspondence department is but one of many which have been received, and which evidences the widespread interest which has been and is taken in the numerous papers which have appeared in these columns upon the subject of advertising by the retail druggist. Without a doubt the druggist does not avail himself as he should of the numerous opportunities for effective, trade-winning advertising. The country druggist is contented with the moss-grown, stereotyped card in his local paper. The city druggist relies upon some sort of a window display and cheaply-prepared placards for drawing the passer-by into his place of business. This is the general rule, though there are many exceptions; it is these exceptions which we would hold up as examples of what can be done by persistent and suitable advertising. Those druggists who have made the subject a study have found it pays. It is the experience of

all branches of commercial industries that advertising pays, and the druggist has exceptional opportunities and exceptional material for attractive and effective work. The public look upon the druggist as a man of mystery, and products which are to him but the tools of his trade, of everyday familiarity, are to his customers objects of interest. The ordinary drug store contains a vast variety of articles with which profitable window advertising may be done. This, supplemented by well-considered announcements in the columns of the newspapers, is a factor of highest importance to success.

Opinions as to what is the best kind of advertising for the druggist naturally and of necessity differ very greatly, but if as much attention be given to the subject as is devoted to other branches of the business there can be no question of the ultimate result. For some time past we have published hints upon advertising, and have illustrated methods followed by those who have found success. If the druggist would take a portion of the time which he now devotes to bewailing his lot and wondering how he can get the old-time prices for patent medicines, and devote it to a study of advertising, he would, if experience of others is any criterion, soon find that his position is not quite so lamentable a one as he has generally believed it. The druggist is too prone to encase himself within a professional reserve and expect the people to come to him without direct sollicitation. If he is to be a merchant, as he undoubtedly is, outside of the precinct of the prescription stand he must pursue mercantile tactics, and one of the most successful of these is advertising.

In the columns of the Journal of the American Medical Association recently there has appeared considerable correspondence relative to the publication in the Journal of patent medicine advertisements. The Journal is controlled and maintained by the American Medical Association, and the ethical members claim that it is a violation of the code and derogatory to the professional standing to present advertisements of these secret preparations. At a meeting a few days ago of the Pennsylvania Medical Society there was read a paper entitled, "Should the Journal of the American Medical Association Be Used to Promote Quackery?" The conclusion of a spirited discussion on this paper was the passage of a resolution declaring that if the Journal could not be published without these advertisements it should be suspended. For consistency, advertisements of this nature most assuredly should not appear in the official organ of the national association, but if such a policy should be decided upon and followed out we fear that a large number of physicians throughout the country will not be induced to discontinue the use of proprietary articles, but will keep right on in the course they are now pursuing. It is a statement which we believe can be proven by the examination of the prescription files of drug stores throughout the country, that 25 per cent. of the prescriptions received from physicians specify some sort of proprietary secret preparation, and, resolu-

tion or no resolution, this practice will continue. There is a very considerable element in the ranks of the physicians which is just as gullible regarding the claims of these secret articles as is the general public, and to this element is due a very large share of the patronage accorded these preparations. However, if the American Medical Association will come out flatfooted against proprietary medicines and pursue a consistent course with reference to them it will go a great way in decreasing the evil.

Our English friends are not free from trouble on the score of counter-prescribing by druggists, and the pharmaceutical and lay press often have considerable to say about the matter. The Chemist & Druggist comments upon an article in the *Asclepiad* by Sir B. W. Richardson. He discusses the matter quite fully, but the portion of his paper which is of most interest to us, and which is the subject of our contemporary's particular attention, is that wherein he suggests the institution of a medical diploma for pharmacists who wish to practice counter-prescribing. The qualifications of such men would be the pharmaceutical ones as they now stand, plus all those parts of the present examination for medical license that are not included in the pharmaceutical division; for this combined examination there would be plenty of excellent candidates, if the admission were reasonably accessible. This qualification is to extend solely to counter practice, never to outdoor visiting. It would not give the dispenser the right to sign certificates of death nor the right to call himself a registered practitioner of medicine, but it ought to give him the right to dispense publicly medicinal substances with qualified judgment. This proposition would undoubtedly prove very acceptable to pharmacists, but from the medical practitioner's point of view it is monstrous. There is no prospect of its very soon becoming a certainty.

As announced before in the Era, the Senate of Ohio has approved of the Abbott bill, which proposes to allow, for the period of three months after its passage, any one who has had five years experience in a drug store to become registered as a pharmacist without examination by the State Board of Pharmacy. The bill has just been defeated in the House. The proposition did not meet with favor from any one who appreciates the responsibilities which attach to the profession of pharmacy, and all the pharmaceutical associations of the State and the most enlightened physicians entered earnest protest against it. The Ohio State University Chemical Association characterized it as a degradation to the profession of pharmacy, and an imposition upon the patronizing public, and denounced in the strongest terms this measure, which "proposed to force upon the public incompetent professional men called doctors, who, despite their brilliant intellects, are unable to pass the examination of the Ohio Board of Pharmacy; also a corps of assistants and uneducated managers and proprietors and thereby seriously endangering the

lives of the people." We congratulate Ohio pharmacists upon its defeat.

The other day a young man was arrested up near the Maine border of Canada on the charge of smuggling phenacetine, and upon him was discovered 16 pounds of the article. As he could purchase the preparation in Canada for 3 cents an ounce and it will bring in the States from 50 cents to \$1, he apparently had a very fair speculation. The American agents for this preparation are very active in its protection, and undoubtedly it will go hard with this offender. The article is made by a patented process and is further protected by copyright and trademark. One Eastern paper takes this incident for a text for a few remarks upon the tariff question, and alluded subjects, and asks why it is that the people of the United States should be so thoroughly protected that they must pay a dollar for an article which costs but a few cents to manufacture, and which may be bought just across the Canada border at a third of the price. The tariff question is not all that is involved, but still the query propounded opens up an interesting train of thought and speculation.

CASTOR OIL AS AN ADULTERANT.—Castor oil is employed for the adulteration of copaiba, croton oil, etc. L. Maury (Jr. d. Ph. et d. Ch.) describes a method for its detection in these products. It is based on the reaction which occurs when castor oil is subjected to dry distillation in the presence of potash or soda, sebatic acid and caprylic alcohol then resulting from the decomposition of ricinoleic acid. The sebatic acid obtained by treating the alkaline sebaccate with a mineral acid, is insoluble in cold, but soluble in boiling water. Oleic acid submitted to distillation also yields sebatic acid, but the latter is not produced from poppy or olive oil in the presence of excess of alkali, and it is probable that in this respect castor oil may be peculiar. In testing suspected copaiba, 10 gms. are warmed gently in a silver capsule with as much dry caustic soda. When effervescence ceases, the odor of caprylic alcohol will indicate the presence of any castor oil. Subsequently, the product of the reaction is treated with about 50 gms. of distilled water and warmed to assist solution. When cold the insoluble resin is filtered out and the liquid treated in a porcelain capsule with excess of nitric acid, and then boiled and filtered while hot. On cooling, if castor oil has been present, a white precipitate of sebatic acid is produced, which is soluble in boiling water and precipitated from the solution by sub-acetate of lead as sebaccate of lead. This process is said to detect as little as a few drops of castor oil in 10 gms. of copaiba. In the case of croton oil the method is the same, except that only 5 gms. of oil should be treated and the other substances reduced in quantity by half.

DOSE OF EXALGINE. At a recent meeting of the Paris Academy of Medicine, Du Jardin-Beaumetz stated that the dose of exalgine as commonly stated was too large, it being his belief that it should never exceed 2 centigrams.

[Written for The ERA.]

PHARMACOGENY—ITS SCOPE AND THE METHODS OF TEACHING IT.

By J. O. Schlotterbeck, Ph. C., B. S., Instructor in Pharmacogeny and in Botany, in charge of Materia Medica, University of Michigan, School of Pharmacy.

(Continued from page 395, May 1.)

IV.

Recalling the nature of instruction in pharmacogeny during the first year of the college course, it will be conceded that without that preparation the study of crude drugs as to their identity, purity, quality and substitutions would be most unsatisfactory. The study of Plant Morphology was absolutely necessary for good work in microscopical botany, and the two together are indispensable for the practical work upon crude drugs—the method of studying them forming the subject of this paper.

Practical work in identifying the drugs of the pharmacopoeia continues throughout the entire senior year, and at the close a most rigid review of the entire two years' work is held.

The drugs are taken up in the order given in Malsch's *Materia Medica*—a book having many valuable features—some of which have been added in the last revision. It is a book brimful of facts—the very cream of pharmacognostical facts, with all superfluous matter rejected. It forms an excellent reference book, but a most difficult text book. In some colleges where it is employed it is made a veritable grind, in others it can be and is made an interesting aid to a useful study. It hardly seems possible that any teacher would require his students to burden their memories with the text there given, without varying the monotony by dilating upon the history, distribution, culture, collection and uses; or even illustrating by drawings, charts or herbarium specimens the drugs under consideration. Yet such is the case. Even more—some of them are giving no other opportunity to examine the drugs than through the doors of a museum case.

Unless something is done to interest the student, the study from this book, or any other, is most monotonous. The writer has often wondered how the subject matter is treated, and what is required of the students in other colleges. It requires much thought and study on his part to conceive the best method to pursue. The teacher must place himself in the position of the student, study his needs, meet the difficulties and arrange the work to the end of doing the most possible good in the time available, even though it means increased work and inconvenience for himself.

In this school we endeavor as much as possible to encourage the use of the *Pharmacopoeia*. In pharmacogeny, the pharmacopoeial name is given first. The botanical name is given next—not alone as a name for a thing, but, where possible from the derivation, the name is interpreted to convey some information upon the plant or plant organ. As each lesson is assigned, as many students are given the task of searching for the derivation of the generic and specific names as there are subjects announced. These reports are written in his book by

each member of the class. The specific names may refer to the divisions of the leaves, as *Aralia quinquefolia*, *Hibiscus trilobus*; the form of the leaf, as *Viburnum prunifolium*, *Xanthorrhiza apilovola*; the margin of the leaf, as *Barosma serratifolia*, *B. crenulata*; the direction of growth of plant, as *Gaultheria procumbens*, *Triticum repens*, and so on.

While it is not considered necessary to know the names of all the natural orders to which the various drugs belong, the more important ones, and especially those including a large number of the more common medicinal plants, are discussed with particular reference to their characteristics.

Only to a botanist of much experience would the names of all the natural orders mean anything. Names of plants alone without having contact with them mean very little, therefore why compel the memorizing of orders, the plants of which grow only in tropical countries, for instance?

In the same manner as the derivation of the scientific names was obtained, so the synonyms of the drugs are searched for and reported in class by the students. They are entered in their note books, and although not quizzed upon very closely, form a feature of great practical value in business.

The active constituents of the drugs are next discussed, leaving out of consideration the common, inert constituents common to all plants, and which have been aptly called plant dirt. The chemistry of these active principles is considered in another course by Prof. Stevens.

Although posology is not a part of pharmacogeny, it forms such an essential and indispensable portion of the pharmacist's knowledge that he cannot know it too well; therefore, doses are given whenever advisable.

One can cram the text in Malsch's *Materia Medica* to such an extent that he can give a good verbatim recitation of almost any drug and then have a very poor conception of the drug itself when put to the test of identifying it. In the writer's opinion, those descriptions were no more intended to be committed to memory and recited than are the botanical descriptions in Gray's *Manual*. After having had the drugs to study, having verified the descriptions in the book by his study, and being familiar with the meaning of scientific expressions, the student can give a lucid description in his own words that will mean infinitely more to him than the cut-and-dried ones in the book.

The practice work is conducted as follows:

Liberal samples of the drug to be examined are placed in sliding pasteboard boxes (powder boxes), four of which are placed in a larger box. There is no distinguishing mark of any kind except the student's name on the cover of the large box. At the opening of the hour each student is furnished the box bearing his name, and he at once proceeds to analyze the drugs in the small boxes, by means of the key preceding every decision or classification of plant organs in Malsch. Knives for cutting sections and lenses for examining the grosser structure are constantly employed. The immense value

of the first year's preparation becomes apparent in this work. In order to use the keys intelligently and rapidly, scientific terms must be at the tongue's end, and a knowledge of anatomical structures becomes indispensable. The instructor continually passes round the room to give aid, and questions the students in their work. The result of each determination is written on a slip of paper, signed by the student, and inclosed in the box containing the drug. The reports are examined and a record kept. All sets are rearranged each day, those incorrectly determined returned for a second trial. And so the work continues, until nearly all of the drugs have been analyzed by each individual. After this is completed, all these drugs are placed upon the table in jars, correctly labeled, for a review and self-examination. Never was such interest taken before as this year, each one endeavoring to analyze the four assigned to him within the hour.

One may become very familiar with the appearance of a person by constantly meeting him in public or on the street, without knowing anything of his personal character or disposition. Yet it may happen that, if that person should be differently attired than when you were accustomed to see him, you might not be able to recognize him. Very similar in the study of crude drugs. A student may become perfectly familiar with the external features of certain specimens of drugs by constantly looking at them; yet when he goes out into practice and finds other specimens of these same drugs with somewhat different external characteristics, due to various causes, he may fail to recognize them. Therefore, the drugs themselves must be studied, preferably with the aid of a book, and not from the books alone.

During the last two weeks of the senior year the 300 drugs that have been studied are placed upon the tables for a grand final review, after which the examinations are held.

For illustrating lectures by means of pressed plants a new application of an old principle has been adopted. The cuts on the next page show front and back view of a light wooden frame with glass. There is a space of a quarter inch from the inside of the close-fitting, movable back, so as to admit of specimens with thick underground stems or roots. They are inexpensive, light, easily handled, and protect the specimen against injury while being passed among the class. All specimens can be arranged before class and circulated during the lecture.

To lend more interest to the study of pharmacogeny, one day per week is set aside for the reading of five-minute essays upon subjects assigned by the teacher. To avoid the indifference and inattention on the part of some students, likely to result from such a proceeding, the following plan has been eminently successful: Each student is compelled to write out at the end of his essay all the questions he thinks bear directly upon the subject, and which he believes the instructor would ask him were he examined upon his essay. Essays and questions are read over by the instructor before bringing to class for reading. All questions that

appear to him foreign to the scope of the paper are stricken out, while others of more importance are added. Before the reading of each essay the queries upon the same are read to and copied in note-books by the class. Naturally many of these questions could not be answered by the majority of the class, since the material from which they were obtained was gleaned from much reading in the library. As the class are required to answer the questions after the paper has been read, they will naturally pay the strictest attention during the reading, and follow question after question, as they are being answered during the reading. Moreover, these questions are all written in permanent note-books, and form an excellent method of self-examination, and at the close of the course are all reviewed again by the class with the instructor.

As an example of the nature of this essay writing, the following on "Eucalyptus," by Mr. C. H. Williams, is submitted:

Eucalyptus.

Nothing, in all nature, contributes more to the enchantment of a continent than the presence of stately trees, whose towering heights seem almost to live among the clouds. We stand in admiration before the eucalyptus, whose beauty of form and gigantic size have long been the leading theme of travelers in Australia and in Tasmania. The raging winds meet their greatest foe in these mammoth monarchs, whose branches ascend as high as 300 feet above the earth. It is not uncommon to see numbers of these trees growing side by side, each one being over 200 feet high; and yet here, as also in the other realm of creation, some are dwarfed to the size of a simple bush.

The eucalyptus was first found by the French botanist, Labillardiere, in Van Diemen's Land. This was in 1792. It received classification in 1799, but beyond this, received little attention from scientific sources for many years. Although economically valuable, it is best known by the general reading public on account of its influence when planted in moist, miasmatic regions. It is said to destroy miasma, which causes fever in malarious districts. From this service to mankind it has been called "the fever-destroying tree." The evidence for this property and consequent claim is so strong that it is convincing. Large forests of it have been planted in Europe and throughout the entire world. It thrives well in England and its culture is rapidly spreading in this country. Malarial localities have been rendered healthful by its influence; this rendition is in two ways; first by its absorption, like a sponge, of the stagnant surface water, and secondly by an emanation of an odorous and antiseptic principle from the leaves.

Eucalyptus is official under the name Eucalyptus; its botanical name is Eucalyptus globulus, and it belongs to the natural order Myrtaceae. The generic name is of Greek origin, and refers to the buds being well covered. Globulus indicates the round and numerous globular oil glands which the leaves contain. The Myrtaceae are the myrtle blooms, and are either trees or shrubs. The genus includes

about one hundred and forty species, most of which have been described. They are all evergreens and are variously known as gum trees, wally butta and iron barks. Eucalyptus globulus is the most important. It grows most luxuriantly on hillsides and slopes, and among the wooded hills. The trunk is smooth and gray, the thick outer layer of the bark easily peeling off. The leaves of young trees are ovate with cordate base and acute apex; smooth and pale, greenish blue in color, petiolate and opposite. In trees of older growth the leaves are alternate with twisted petioles. The blade is from six to twelve inches in length, tapering both at apex and at base; they are dull green in color, thick and leathery and supplied with numerous oil glands. Large pinkish or white sessile flowers, sometimes single, but often two or three crowded together on single peduncle. The fruit varies, but the typical form is button-shaped.

When used for medicinal purposes the narrow sickle-shaped leaves from the older trees are the only ones employed. In 1870 extensive and elaborate chemical study was made of the eucalyptus. The results then obtained have since been confirmed. The constituents are chlorophyll, resin, tannin and various inert substances, also a volatile oil. The oil is obtained by distillation, and it possesses the taste and odor of the leaves; it is the medicinal principle, and is said to contain eucalyptol of the formula $C_{15}H_{26}O$, also two terpenes and cymol.

The eucalyptus, at one time, was supposed to contain quinia, or some of the cinchona alkaloids, but more recent investigation has proved this untrue. Farquharson, in his materia medica, says that



oleum eucalypti may take the place of cinchona in medical practice when the discontinuation of cinchona is necessary.

Eucalyptus is used as a febrifuge and physicians in authority have reported it favorably; also employed as a vermifuge. Externally applied, the leaves are rubefacient, and some recommend them for the dressing of wounds instead of lint. The antiseptic power of eucalyptol is said to be greater than that of quinia, and four ounces of the oil in a bushel of sawdust is a good disinfectant.

Extractum eucalypti fluidum and oleum eucalypti are official. The latter is very often adulterated with alcohol and the essential oils of copaiba and turpentine. The alcohol is detected by means of fuchsin, which is insoluble in the pure oil, but readily soluble in that containing small

quantities of that adulterant. The boiling points of the other adulterants are ready means of their detection, as the oil of eucalyptus boils at 170 degrees C., while the oil of copaiba boils at 290 degrees C. and turpentine at 165 degrees C.

The Southern States are introducing the



culture of eucalyptus quite extensively. Especially is this true in Florida. California is never backward in the improvement of her landscapes and in anything that contributes to the welfare of her people. Perhaps her climate is especially fitted for the growth of this tree king, for it grows there with surprising rapidity.

Questions.

1. Give pharmacological preparations of eucalyptus.
2. Give derivation of generic and specific names.
3. To what order do the myrtle blooms belong?
4. Has the eucalyptus any value other than economic?
5. What is the medicinal principle?
6. What is eucalyptol?
7. Are leaves of young trees valuable?
8. Describe a typical eucalyptus leaf.
9. Define the expression, "heterophyllus."
10. Meaning of "pellucid," "punctate."
11. What is sometimes used as an adulterant?
12. Define "febrifuge," "anti-periodic."

[Written for THE ERA.]

SOMETHING ABOUT BACTERIA.

By L. SOLLIMAN, Canton, Ohio.

Bacteria are the smallest-sized organic mischief-makers we are acquainted with, but it is a debatable question whether the noxious action of these microscopic vegetables is not outweighed by their beneficial offices in the domestic economy of this world. It is a settled question that certain bacteria are the primary and only cause of certain diseases, as, for instance, cholera, typhoid fever, diphtheria, anthrax, etc. Other bacteria are always present in certain pathological conditions of organisms, but it is doubted whether they are the cause thereof, for instance, in pneumonia and other inflammatory diseases. It is lucky for humanity that the conditions under which a given bacterium will multiply are exceedingly limited, a slight rise in temperature or a very small change from the alkaline or acid reaction of its diet paralyzing the bacterium or reducing its virulence.

This may serve to explain why certain bacteria will thrive only in given genera of animals and not in man, and vice versa. In cholera, typhoid and gonorrhoea, the bacillus is contagious only to man. The bacillus of swine erysipelas

and chicken cholera do not affect him. It has been proved by experiment that if the blood of an animal is artificially alkalinized it is made susceptible to cholera.

Active bacteria do one or all of the following: They disorganize or interfere directly with the nutrition of their medium. Among their excretions they form certain nitrogenized bodies, which if toxic alone, are called toxalbumens, and ptomaine poisons virtually belong to this class. If these bodies are of a nature to produce the death of the excreting bacteria, they are called antitoxins. The modern "alexins" are of this class. Practical experiments have shown that the symptoms of many diseases can be produced by the injection of these toxalbumens alone, after the bacteria have been carefully removed by proper filtration. Cholera and tetanus and diphtheria bacteria create such toxalbumens. To the antitoxins is due the self-limitation of many contagious diseases. Now, it is a tempting speculation to obtain immunity for an organism by introducing into it the respective antitoxine. Directly this cannot be done, as the cure would be as bad as the disease, but we make use of another fact in the biology of the bacterium. As previously mentioned, the conditions for the thriving of bacteria are limited. By making these just unfavorable enough to allow the bacteria to live, but not live vigorously, we will have a comparatively weak toxalbumen or antitoxin. Injecting this we produce in an organism a mild form of the disease, and in cases just enough antitoxin to prevent vigorous bacteria from thriving in the same field afterward. Just how to do this is the great study of Pasteur, Koch and other bacteriologists. In some instances they succeed by raising the bacteria in unfavorable animals, in others by continued breeding, in the same medium; in others, again, by alternately raising and lowering the temperature of the medium. Such antitoxin by inoculation has proven successful in anthrax. Koch's antituberculin partially succeeded. This freed of materia medica as it might be called, is one of the most promising.

Whilst bacteria are comparatively delicate their spores are very tough. But heat will invariably destroy them, provided it is applied reasonably long. No spore withstands four hours of boiling. Toxalbumens are easily decomposed by dry heat, and whilst I have no data to prove it I strongly suspect that all ptomaines can be made innocuous by continued boiling, and more certainly by dry heat.

It is a startling fact that the bacillus of typhoid fever will live and thrive in a medium containing 1-10 per cent. carbolic acid. It is evident that the strength of a disinfectant is of primary importance. One pint of carbolic acid would not sterilize three barrels of typhoid infected matter. Oxidizing or dehydrating agents require similar consideration, one in 10,000 bichloride left in contact for half an hour kills every known micro-organism.

No bacterium diffuses itself or its spores into the air. It has to be mechanically carried. This may be done by the wind or it may be done by liquids and solids.

[Written for The ERA.]

DRUGGISTS WHO ARE TOO ENTERPRISING.

By Albert Henry.

Mark Twain is somewhat of an iconoclast and more of a humorist when he asserts that the saying, which has been accepted as an aphorism, that "it is dangerous to put all of one's eggs in one basket," is a fallacy, and that it should be amended and the advice changed to the direct opposite; namely, to "Put all your eggs in one basket—and then watch that basket."

We have a druggist in our town who seems determined to have as many baskets with eggs in them as he can get, even if each basket has only one egg. To me he is impressive of a certain kind of enterprise which has infected retail druggists in common with other business men. He is full of push and energy, and when he is talking with me he is always sanguine of the results of his ventures. And in reflecting on his words I sympathize a little in the feelings of a millwright who witnesses a fine water power running to waste, its utility lost through ignorance.

Last Christmas season our druggist thought he saw his way clear to making a good profit on toys, arguing, before the holidays were on, that, as he had the floor space, all he would have to do would be to put the toys on view and customers could select what they wanted in that line without demanding the attendance of himself or clerk. All he would have to do would be to announce the price and take the money. Previous to this development of enterprise, our friend, whom I will call Jones for convenience, had been handling school books. Now the margin of profit on school books is slim, owing to the operations of the book trust, but Jones would prance out with a half-filled prescription to deal out mental pabulum in the form of school books to crowds of restless and noisy urchins, driven to neglect his legitimate business in order that the youngsters might be satisfied and dismissed. The advent of the toys, however, made Jones a veritable Santa Claus, as on every pretext the youngsters, who had grown familiar with the store from purchases of slate pencils, copy books and chewing gum, would crowd in to meddle with the flimsy and gaudy array of stuff provided to gladden the youthful heart. In consequence, Brother Jones or his clerk was always admonishing. From behind the dispensary would ascend a voice as from a sanctuary: "Now, boys, boys! you must keep quiet. If you want to play, go outside."

"Your prescription will be ready in about ten minutes, Mr. Smith."

Mr. Smith (anxiously)—"But, Mr. Jones, I should have it now, and I am really surprised that it has taken so long. Dr. Kurefit told me it would take but a short time to prepare, and to give it to my wife as soon as possible. Can't you help me out?"

"Very sorry, Mr. Smith; I'll do my best. Don't handle those toys, little boy. That popgun is five cents. Now, boys, what is it? If you don't want anything you must go outside. I assure you, Mr. Smith that I am busier this season than at any time in my experience. Returns

are not what they should be, though. I am exceedingly sorry that I have delayed your prescription, but I have been interrupted quite frequently and it was quite unavoidable."

Not satisfied with the toys as a factor in absorbing the odd moments of his time, Mr. Jones put in a stock of fancy stationery and Christmas cards. As a business man I was both amused and vexed that he should be so shortsighted, and a conversation which I overheard when in the village grocery store a short distance away, between two ladies, convinced me that Jones should see the error of his ways in the expression of public sentiment therein revealed:

Mrs. A.—"I wonder what Mr. Jones intends to make of his store? I declare to goodness it's awful. I get so tired waiting in there for anything I don't go in unless I can help it. He's got pretty near a general store in there now."

Mrs. B.—"Yes; I was quite annoyed the other day. I wanted to get a little oil and lime water for Jessie's wrist. She had just given it that bad scald, and there I had to wait and wait, and the poor girl suffering all the time. I was just ready to tell him what I thought of him when Willie—he's only a child, you know—pulled out some of those trumpery toys and broke one of them, which, of course, I had to pay for. I must say that Mr. Jones was very nice about it and was not going to allow me to pay; so, of course, I could not speak to him about his keeping me waiting so long. But I will go to Plodder's after this. I like a drug store where you can be waited on in time."

Not long after this, having occasion to send my little son for a supply of ink, he asked me if he would get it at Jones' drug store. I was on the point of telling him to do so, when my wife interrupted with the protest, "Oh, don't go there; you will have to wait if he has a prescription to fill. The place is always full of idlers at any rate, and I don't want Willie to go there." Willie didn't go there.

Now, if my friend Mr. Jones is not suffering from misdirected energy, I am much mistaken. The incidents and conversations which I have set down are actual facts, the names only being disguised.

The question is, How far should a druggist depart from his legitimate business to make both ends meet? I presume the answer will be, in many cases, "It depends." Would not a discussion of this matter be of profit to the druggists of the country? It appears to me that if contributors would take the matter up and state their experience—their competition, their environment and other matters of detail—some of the principles of business would be distributed advantageously among the clientele of The Era.

ADULTERATED WAX.—The U. S. P. states that "if 5 gms. yellow wax be heated in a flask for fifteen minutes with 25 cc. sulphuric acid to 160 deg. C. (320 deg. F.) and the mixture then diluted with water no solid waxlike body should separate." A separation of a waxlike body would indicate the presence of probably paraffin as an adulterant. Three samples of yellow wax, which had been molded into small squares and cones, contained each considerable proportions of paraffin.

ANCIENT CHEMISTRY.

M. Berthelot, the eminent French chemist, has in late years devoted himself with much persistence to the study of the history of chemistry, for work of which kind his equipment is of an unusually complete character. He has recently published a very interesting work, "La Chimie au Moyen Age," which, being extensively reviewed and commented upon by one of the leading French journals, is made the subject of some very interesting remarks by our English contemporary, the Chemist and Druggist. What the latter says concerning certain branches of the work is of such service and pertinence that we reproduce it below.

The starting point of the alchemic tradition is lost in the mist of ages. Zosimos, the Panopolitan, traces it to the rebel angels, who, seduced by the love of women, betrayed its secrets in return for their favors. For this they were driven from heaven, and thus was founded the race of giants. Tertullian, writing of this tradition, held that the secrets confided to women by the fallen angels related to the art of poisoning, to transmutation, to magical incantation and to working in precious stones.

It is curious how widely disseminated this myth became in the Dark Ages, but it is only part of that blending of early science with religion which all history teaches. In fact, all early science was of a religious character. The temples of the East were the storehouses of learning. All industrial work was inaugurated with magical rites, and the priest was as important as the bullock.

In ancient Egypt alchemy was the "sacred" art and was taught only to king's sons. All Egyptian learning was symbolic, and language is so continually used in a vague and enigmatical sense that it is difficult to define it by precise meaning. The pupils of the alchemists were bound by oath to keep secret all teaching imparted to them. Nevertheless, the Egyptian people possessed a wide knowledge of the working of metals, of alloys, of working in glass and precious stones, similar to that practiced by the alchemists of later ages. A papyrus discovered in a tomb at Thebes gives instructions for purifying, tempering and soldering metals, for making glass, for mixing love philtres, for procuring dreams, and for insuring the success of any undertaking. This papyrus, M. Berthelot believes, contains the oldest known alchemical receipts.

M. Berthelot insists on an intimate connection between Babylonian, Chaldean and Egyptian science. The story of the philosopher's egg appears to have been common to all.

There is preserved in the National Library at Paris a number of alchemical manuscripts of great interest. They were brought into France in the reign of Francis I., who made extensive purchases of books in Greece and in the East generally. They were written in the Greek language and copied in the fifteenth century. A still earlier manuscript is that of St. Mark at Venice. This dates from the eleventh century. It bears marks of loving study and has many marginal notes. Its pages are stained by chemical substances, and its figures are more carefully

drawn than those in the later manuscripts. It probably represents the position held by the occult sciences in the fourth century, or even at an earlier period. Many of these texts were probably written by authors who had seen and studied those priceless works of learning which have been lost to us by the destruction of the Alexandrian Library.

To say that these manuscripts have been discovered by M. Berthelot would be incorrect. Borrichius, a Danish doctor, referred to them in the seventeenth century. They were known to Du Cange and Reinsius. Hoefler published extracts from them in his "History of Chemistry," but it is M. Berthelot who has assigned to them their true importance.

It has been usual to look upon Arabia as the birthplace of chemical knowledge. M. Berthelot claims to prove that this was not so, and contends that the part played by the Arabs, even as transmitters of an earlier knowledge, has been greatly exaggerated. The fact seems to be that Eastern science has come down to Europe in two well-defined streams—one by way of Syria and Arabia, the other from Egypt through the Alexandrian Greeks and the industrial arts of the Roman Empire. A great part of Arabian was of Hellenic origin. The book of Crates is impregnated with Greek ideas, and the same may be said of the authentic works of Geber. The importance of Hellenic influence has perhaps been overlooked through the absence of alchemical symbols in the Arab writings. This is most likely due to Muslim intolerance of everything pertaining to magic. It is a curious fact that alchemical symbols do not appear in the Latin translations of the thirteenth century, and their reappearance at the close of the fourteenth century was owing to the direct influence of Greek authors. The art of distillation, which has been generally attributed to Arabia, was really practiced in Greece centuries before the birth of Geber, and the same may be said of many other processes.

Arabian influence has been exaggerated also in assigning to Arabic authors Latin writing of a later date. There is strong internal evidence that the Latin works of Geber are spurious. His undoubtedly genuine works are full of declamatory and vague idealism, charlatanesque to a degree, but containing philosophical ideas, generally of Greek origin. For instance, he traces an analogy between metals and living beings similar to that which exists between the body and spirit. This corresponds with Aristotelian theories. That Geber was conversant with Greek philosophy is attested by his translation of the logic of Aristotle and other works of a metaphysical character. But the Latin words attributed to him are of a different order altogether. They are scholastic in style and method, and treat of matters unknown to Arabian scholars. In the Alchemy, mistakenly attributed to Geber, the manufacture of nitric acid is described, although its discovery took place long after his death.

Broadly speaking, M. Berthelot maintains that science, properly so called, originated with the Greeks. All knowledge anterior to them was of a non-rational character, steeped in mysticism and sacerdotalism, even when most usefully

applied. But in science, as in literature, the Greek intellect was clear, critical and perceptive. Thus came about the divorce between science and empiricism which elevated the epoch of the eighteenth century to a point beyond which but little progress was made until the end of the sixteenth century. Not that this growth was sudden—superstition dies hard; but charlatanism became discredited by enlightened minds, and had far less sway than in later times, when the antique culture was swamped by the breaking up of the Roman Empire. This enlightened knowledge was transmitted through Syria to its Mussulman conquerors. Syrian scholars translated and edited Greek authors, Aristotle particularly. Alchemy, medicine and astronomy were their favorite studies, and professors of these sciences acquired great influence at the courts of the Byzantine emperors. Baghdad eventually became the seat of important schools. It is to Syrian scholarship that we owe many of the most important alchemical manuscripts scattered through the libraries of Europe. They are generally translations from the Greek, and form the basis of M. Berthelot's historical theories. An important manuscript in the British Museum commences with a list of symbols—the names of the metals and those products of materia medica employed in chemistry. These are identical with those of the Greek authors. M. Berthelot remarks that in this the names of the metals are associated not only with those of the corresponding planets, but also with those of similar Babylonish divinities. Tin is represented at the same time by Zeus and by Bel; copper by Venus and Bilal, or by Astarte; lead by Kronus and by Camosch. The seven earths, the twelve stones employed as remedies and for amulets, the nineteen colored metals used in tinting glass, recall those numerical combinations so dear to the Neo-Pythagoreans and to Orientals generally. There are besides a number of other manuscripts written in Latin which prove that chemistry—particularly as applied to the arts—was practiced long before the Arab influence made itself felt in Europe. These are of an essentially technical character. The "Compositiones ad Tigenda," a manuscript of Luques, contains recipes for tinting mosaics, dyeing skins, gilding iron, writing in gold, etc. Italian jewelers made use of many of these formulae. Recipes also for soldering and for reducing the precious metals to powder are numerous. This was an important art in the Middle Ages, facilitating the carriage of gold from one country to another.

Many of these old manuscripts are really trades manuals and collections of workshop receipts rather than treatises of learning. The Syriac manuscript at Cambridge includes twelve books written by Zosimos, a Greek author, who lived in the third century of our era. These books are lost in the original Greek, but their authorship is uncontested. They treat, amongst other matters, of working in copper, tin, mercury, lead, electrum and iron. Several of these preparations are referred to under the names of their authors, as is the custom at the present day. This,

as pointed out by Berthelot, was quite opposed to Egyptian tradition, which attributed all alchemical works to Hermes. The special interest possessed by many of these ancient texts consists in the fact that they have been completely ignored by the historians of chemistry in past times, and in the light they throw upon European science before the time when Arab learning became prevalent in Europe. A tradition of the manufacture of unbreakable glass runs all through the Middle Ages. It is frequently referred to in these texts and is said to have been discouraged by Tiberius on account of its influence on existing trades. These treatises influenced the whole industrial life of the Dark Ages, particularly in Italy and France. They represent alike the work and the culture of a period extending from the early years of the Christian era to the time when a similar stream of knowledge coming from the same Greek source passed by way of Syria and Arabia into Europe through the medium of the crusades.

PHARMACY.

"BAR."—The German government will introduce the word "bar" (from the Greek, signifying the last heavy quantity), but is undecided whether to apply it to the weight of 10 or 1,000 kilograms.

ALUMINUM BOROFORMATE, which occurs in shining crystals readily soluble in water, has been suggested by Martenson for use as an antiseptic in place of aluminum and aluminum compounds.

TO ABORT BOILS.—

Red oxide of mercury.....3 grs.

lanolin5 drs.

Rub on boil two or three times daily for three or four minutes each time.—Jorissenne.

SOLANINE is the name given by Lloyd (Am. Jr. Ph.) to an alkaloid separated by him from the root of *Solanum carolinense*. Some physical and chemical characteristics of the alkaloid are described, but it is being made the subject of more extended study and will be further reported upon.

ADMINISTERING COD LIVER OIL. Tell the patient to rinse the mouth with aromatic water, wet the interior of a glass, in which the oil should be placed, have the patient drink it quickly. Again rinse the mouth and at once eat something. Paten claims that if this method is followed, the disagreeable taste of the oil is not observed.

MERCURIAL OINTMENT WITH LANOLIN.—Acting upon the suggestion of a physician, a mercurial ointment was made with lanolin to extinguish the mercury, and excellent results were obtained. Five parts of mercury were extinguished with two parts gently warmed anhydrous wool-fat, until globules of the metal were no longer visible through a lens magnifying 10 diameters, and two parts melted benzoinated lard and one part melted stear added, and the whole rubbed until cold. The lanolin, when slightly warmed seems to extinguish the mercury much more readily and rapidly than mercurial ointment or oleate of mercury. The proportion of lanolin may be increased. The physician reported a much more prompt

action with an ointment thus prepared than with one made in the usual manner.

LIQUID CHLORINE IN TUBES. There are now found on the market glass tubes containing 5 grams of liquid chlorine, an amount which will produce 1,000 grams of chlorine water. This convenient novelty, no doubt, will prove very acceptable for the extemporaneous preparation of chlorine water. The product usually found in the stores is of poor quality, for it deteriorates very rapidly upon keeping.

ACETANILID & NITROUS ETHER. Eccles says that these two products may be prescribed and dispensed in combination provided but little of the mixture is employed. It should be used early, for upon standing for a couple of days or so, there is produced a red or yellow color, indicating the formation of anilins.

The length of time necessary for this color change varies with the brand of acetanilid used and the condition and composition of the nitrous ether.

IDENTIFICATION OF LANOLIN. Incorporate 10cc. of concentrated sulphuric acid with 0.1 gram lanolin; there is produced an intensely red liquid of greenish fluorescence, the depth of shade depending upon the purity of the lanolin. Now add 10cc. of chloroform, shake thoroughly, allow to separate; the chloroform solution will be bright red in color, and at the line of separation of the two liquids will be a black line. By comparison with results obtained with a sample of known purity, the approximate purity of samples may be judged.

ARGENTAMINE is a liquid produced by dissolving 10 parts of phosphate or nitrate of silver in 100 parts of water containing in solution 10 parts of diethylamine. In combining with the latter the silver salt loses the power of coagulating proteic substances and of forming a precipitate of silver chloride in the presence of sodium chloride, whilst preserving its antiseptic and astringent action, which is said to be considerably augmented. Argentamine may be diluted with water at will, and it has been successfully employed in place of silver nitrate. (Ap. Ztg., Ph. Jr.)

SODIUM BOROSALICYLATE.—This is a white, opaque mass when carefully kept dry. It dissolves in four times its weight of cold water, and in its own weight of water at 40 degrees. It is also soluble in amyllic, methylic and ethylic alcohols, acetic ether and glycerin, slightly soluble in acetone, but insoluble in ether. Solutions made by the aid of heat remain supersaturated. The product is made by heating together boric acid and sodium salicylate in the presence of water, producing a syrupy liquid, which is evaporated to a transparent, horny substance, and carefully desiccated.

THE ABSORPTION OF DRUGS IN THE FORM OF OINTMENTS.—In the *Repertoire de Pharmacie*, Dr. Luff has published some experiments which tend to show that lanolin is the best ointment basis when a local action only is required, as this substance prevents absorption; while vaseline favors absorption, and so should be employed when it is desired to obtain the general action of the drug applied in the form of an ointment to the skin. The experiments were made with

iodide of potassium, carbolic acid and resorcin mixed with vaseline, lard and lanolin.—Ex.

CREOSOTE PILLS.—Pills made with magnesia do not keep well, the constituents of the creosote acting upon the magnesia, in time forming compounds which do not seem to exhibit the same medicinal action as creosote alone does. Wax makes a very good pill, but it is objectionable because it does not melt at the temperature of the stomach, and because it is digested with difficulty. Pills made with balsam of tolu have passed unchanged through the alimentary canal. Vulpus recommends the employment of powdered licorice root and glycerine, and pills made in this manner have proved very satisfactory to physicians, as have also those made with powdered marshmallow and glycerine. Another good form of administration for creosote is to distribute it in powdered marshmallow or licorice, and fill into capsules in the moist condition without massing.

DENATURATED SPIRITS. A regulation was recently passed by the French Excise, ordering that in future alcohol should be denatured when methylated, by the addition of 50cc. of benzine and 1 gram of malachite green per hectolitre. The color so produced is not deep, but yet sufficiently so to interfere with its useful employment in several processes (celluloid treatment, certain varnishes, etc.). The following simple method of discolorizing it has, therefore, been devised. A few drops of concentrated solution of hypochlorite of lime is added gradually to the alcohol until just decolorized. By careful manipulation no excess of the hypochlorite is used, and as the coloring matter is completely destroyed by the available chlorine, it can never be destroyed, and simple neutral salts of calcium are left, and these in such small amount as to be negligible. Rep. de Phar. (Br. and Col. Dr.)

PECAUANHA ROOT.—The following two methods for the estimation of the alkaloidal value of this root are advocated by Keller (Bull. Soc. Roy., Br. & Col. Dr.), who has examined a number of samples by both methods and obtained very concordant results: (a) The finely powdered drug is exhausted of its fat by means of ether and the residue digested with a mixture of 90 grammes of ether and 30 grammes of chloroform, and after five minutes 10 cc. of 10 per cent. ammonia solution are added. The mixture is well shaken for half an hour, and 10 cc. of water added, and the shaking continued for a few minutes. One hundred cc. of the clear solution is now poured off and the ether and chloroform and ammonia are evaporated. Finally the residue is washed with ether and weighed or titrated. (b) The fatty matter is not eliminated, but the whole is at once treated with ether, chloroform and ammonia; 100 cc. of the clear alkaline solution is agitated with 1 per cent. hydrochloric acid solution and the acid solution separated from the ethereal layer. This is repeated three times, and the united acid liquors are rendered alkaline with ammonia and agitated with chloroform and ether to wash them. The clear liquid is then evaporated to dryness and weighed. The results obtained by the two processes agree, well to 1-10 per cent of alkaloid.

FORMULARY AND QUESTION BOX.

The object of this department is to furnish our subscribers with reliable and tried formulas and to discuss questions relating to practical pharmacy, prescription work, dispensing difficulties, etc.

Requests for information are not acknowledged by mail and ANONYMOUS COMMUNICATIONS RECEIVE NO ATTENTION. To insure answer in the next number, queries should be in our hands *ten days* prior to the date of issue.

UNANSWERED QUERIES.

E. G. I., J. H. S. and W. E. M. must grant us indulgence until our next issue, for lack of time to make the necessary investigations prevents reply in this number to their inquiries.

6203. Artificial Extract Raspberry.
(C. L. G.)—See query No. 5,984, Feb. 15 Era, page 163.

6204. Extract of Pine.
(W. A. C.) asks what to dispense when "extract of pine" is wanted for a rubefacient. The term is rather an elastic one, and may mean turpentine, which is rubefacient in its action, or again, it may mean some one of the pine resins dissolved in alcohol. Perhaps some one of our readers can throw a ray of light upon the subject?

6205. Dandelion Insect Powder.
(G. C. R.) This insect powder is prepared from the flowers of the *Pyrethrum Cinerariaefolium*, a plant formerly exclusively grown in the Orient, but now largely cultivated in California. The powder produced from the flower grown on the Pacific coast, is said to be superior to that grown in Dalmatia, on account of the care given to the preservation of the color and of the volatile oil during drying. For detailed description of the different varieties of insect powder, how prepared, constituents, etc., see U. S. Dispensatory, page 1662.

6206. Prescription Query.
(G. E.) asks if it would be proper to use a little acacia to emulsify the following prescriptions; or should they be dispensed as written?

- (1) Carbolice acid.....1 ounce.
Yaseline1 ounce.
Bay rum1 ounce.
Mix and use externally.
- (2) Yaseline1 ounce.
Bay rum1 ounce.
Mix and use externally.

As acacia is incompatible with alcohol and alcoholic preparations, it would not emulsify either one of the above mixtures. Each can be shaken together upon warming, which, no doubt, is the way the prescriber expected them to be dispensed. Each should be dispensed as written.

6207. Iodoform Emulsion.
(Subscriber.)—In referring to the formula for this preparation, given on page 545, Dec 15, 1893, Era, asks if heating the mixture to a temperature of 133 degrees C. (271.4 degrees F.) does not decompose the iodoform. At 115 degrees C. iodoform melts, and sublimes partly unaltered, but heated with water it volatilizes with the vapors of the water without decomposi-

tion. In this instance, with starch, glycerin and water the density of the mixture is so increased as to retain the iodoform at a high temperature without decomposition. It is very necessary, however, that the mixture be gradually heated with constant stirring. By the use of heat the iodoform is thoroughly disseminated throughout the emulsion, the glycerin preventing any appreciable loss by decomposition or volatilization. The preparation is said to be very stable and contains about 10 per cent. of iodoform.

6208. Mead Extract.
(W. D.)—Try this one:
Mace 8 ounces.
Cinnamon 8 ounces.
Black pepper 8 ounces.
Nutmeg 4 ounces.
Cloves 4 ounces.
Grind the drugs to moderately fine powder, macerate in one gallon dilute alcohol for 30 days, and filter.

A "tonic mead" may be prepared from the above extract as follows:
Strained honey 1½ pints.
Extract mead 4 ounces.
Acid solution phosphates. 4 ounces.
Extract vanilla 1 ounce.
Infusion soap bark (2 ounces to pint) or solution of gelatine (1 ounce to pint) 1 ounce.
Syrup 1 gallon.

6209. Cleaning and Polishing Tinware.

(A. E. G.)—Acids should never be employed to clean tinware, because they attack the metal and remove it from the iron on which it forms a thin coat. Articles made wholly of tin or tinned iron may be cleaned by first rubbing them with rotten stone and sweet oil, finishing with whiting and a piece of soft leather. In a dry atmosphere polished tinware will remain bright for a long period, but it soon becomes tarnished in moist air. Here are three methods for polishing:

- (1) Vienna lime applied with a linen rag.
- (2) Use whiting and water with a chamolis skin.
- (3) It is said a fine finish may be given to tin by burnishing, the burnisher being wet with oxgall diluted with water. Wash with water containing a trace of tartar and dry.

6210. Calomel and Sodium Bicarbonate in a Prescription.

(R. C. B.)—Asks criticism upon this prescription:
Calomel 6 grains.
Sodium bicarbonate 20 grains.
Bismuth subnitrate 20 grains.
Mix and divide into 10 powders.
All carbonates and bicarbonates reduce calomel to mercurous oxide, hence, such a combination is incompatible. When dispensed in dry powders like the above the reduction takes place very slowly, a gradual coloration showing that such a change is being accomplished. Another change likely to occur is that between the bismuth subnitrate and the sodium bicarbonate, the reaction being represented by the following equation:
 $2 Bi O N O_3 + 2 Na H C O_3 = Bi_2 C_3 C O_3 + 2 Na N O_3 + C O_2 + H_2 O$

Though the prescription is chemically incompatible, it represents a combination very frequently prescribed.

6211. Artificial Extract Strawberry.

- (1) (C. L. G.)—
Pineapple oil.....11-2 oz.
Tincture orris root..... ¼ oz.
Tartaric acid..... ¼ oz.
Alcohol 1-1-2 pints.
- (2) Deodorized alcohol40 fl. ozs.
Pure strawberry juice.....20 fl. ozs.
Raspberry essence10 fl. ozs.
Pineapple essence 5 fl. ozs.
Acetic ether 5 fl. ozs.
Tincture orris root.....5 fl. ozs.
Butyric ether 5 fl. ozs.
Acetate of amyl 3 fl. ozs.
Butyrate of amyl..... 2 fl. ozs.
Nitrous ether..... 1 fl. oz.
Formic ether 1 fl. oz.
Oil wintergreen 1 fl. oz.
Acetic acid 1 fl. oz.
Glycerin 1 fl. oz.

See reply to query No. 5984, Feb. 15, 1894, Era, page 163.

6212. Iron Pyrophosphate and Quinine Sulphate in a Prescription.

(C. E. B.) asks how he can effect complete solution of all of the ingredients in the following prescription, and how he can make them remain so dissolved:
Iron pyrophosphate..... 4 drams
Quinine sulphate1 dram.
Compound tincture of gentian 5 ounces.
Compound tincture dandelion 3 ounces.
Strychnine (dissolved in 1 dram acetic acid).....1 grain.

A complete solution of iron pyrophosphate cannot be readily effected without remodeling the prescription and introducing into it a certain amount of water in which to dissolve that salt, as it is insoluble in alcohol and strongly alcoholic solutions. Our method of procedure would be to first dissolve the iron pyrophosphate in 1-2 ounces of water by the aid of heat. In a mortar triturate the strychnine and quinine with the acetic acid, gradually adding under trituration the compound tincture of dandelion and about 2 ounces of the compound tincture of gentian. To this latter solution add enough water of ammonia to neutralize the acid, and then add the solution of pyrophosphate of iron. Finally, add enough of the compound tincture of gentian to complete the desired quantity, or 8 ounces. In whatever manner prepared, the mixture can hardly be called elegant or be made permanently stable.

6213. Shampoo Cream.

(G. C.)—The following may prove satisfactory:
Borax 2 ounces.
Glycerin 1 ounce.
New England rum.....15 fl. ounces.
Bay rum.....10 ounces.
Whites of eggs..... No. 2
Incorporate the borax in fine powder with the glycerin, and add the bay rum and New England rum gradually and with constant stirring. The previously well-beaten white of egg is added, and the whole stirred thoroughly until an even mixture results.

If a shampoo cream of an unctuous consistency be desired, try this one:

- Lard 7 parts.
- Caustic potassa 2 parts.
- Water 3 parts.
- Glycerin a sufficiency.

Melt the lard in a porcelain vessel over a salt-water bath; dissolve the potassa in the water, and run the lye formed very slowly into the melted grease, stirring thoroughly all the time, until saponification is completed. Then add some desired perfume and enough glycerin to render the mixture of the right consistency.

6214. Sanitary Lotion.

(F. M. Z.)—We cannot give you a formula for the proprietary preparation you name. Perhaps one of the following formulas for an antiseptic lotion may answer your purpose:

- (1)
- Thymol 1 part.
- Alcohol 30 parts.
- Glycerin 20 parts.
- Water 100 parts.

Dissolve the thymol in the alcohol, add the glycerin, and, lastly, the water.

- (2)
- Menthol 0.2 grams.
- Thymol 0.5 grams.
- Boric acid 0.2 grams.
- Sodium benzoate 1 gram.
- Sodium salicylate 1 gram.
- Oil gaultheria 6 drops.
- Oil eucalyptus 18 drops.
- Glycerin 15 grams.
- Water, to make, 188 grams.

The Era has from time to time published many formulas of preparations for a similar purpose, and you should have no difficulty in finding additional information upon consulting the various indexes.

6215. Solubility of Menthol in a Prescription.

- (C. E. M.) submits this prescription:
- Pure water, 1 ounce.
 - Solution cocaine (10 per cent), 48 grains.
 - Solution antipyrine (5 per cent), 24 grains.
 - Menthol, 5 grains.
 - Oil of cloves, 3 minims.
 - Ether, 20 minims.
 - Glycerin, 1 dram.

He says he dissolved the menthol in the ether, adding to the solution the oil of cloves, glycerin and the solutions of cocaine and antipyrine in the order named. Upon the addition of the water the mixture became cloudy, and so remained. By substituting alcohol for one-half of the water a clear solution was obtained. Does such addition alter the efficiency of the prescription? The cloudiness you have observed is due to the insolubility of the menthol in the water. The mixture is intended for a dental anaesthetic, to be injected into the gums, and you would hardly be warranted in so changing the character of the solvent without consulting the prescriber. The addition of so great a quantity of alcohol is likely to produce severe local irritation. By using only enough menthol to make a saturated solution you may be able to get a clearer and more transparent mixture.

6216. Precipitate in Basham's Mixture.

(G. C. R.)—If this preparation be properly made you will have no trouble with

it. The precipitation you notice is due to alkalinity of the solution of ammonium acetate. The directions for preparing this solution are that ammonium carbonate be added to the dilute acetic acid till the latter is neutral. You have probably gone too far, and have an alkaline solution. In making the Basham's Mixture you are told to add dilute acetic acid to the solution of ammonium acetate, for the purpose of having a decidedly acid solution before adding the tincture chloride of iron, but this amount of dilute acid in your case was evidently insufficient to overcome the excessive alkalinity of the ammonium acetate solution, hence as soon as the iron was added precipitation took place. If all the ingredients of the preparation are of strictly U. S. P. quality you will have no trouble. The mixture should, however, be freshly prepared when wanted for use, as upon long standing it is liable to deteriorate.

6217. To Clean and Polish Brass.

(A. P. F.)—We think you can make a selection from the following:

- (1) Dip the articles in a mixture of one part of nitric acid and one-half part of sulphuric acid; then rinse in water; and finally rub with sawdust. If greasy, dip the brass first in a boiling hot solution of potash lye.

(2) A weak solution of ammonia in water makes an excellent wash. Apply it with a rag; dry with a piece of chamois, and afterward rub with a piece of chamois and a very small quantity of jeweler's rouge.

(3) Place 2 ounces sulphuric acid in an earthen vessel and add 1 quart cold soft water; after the heat has passed off, add 1 ounce each of tripoli and jeweler's rouge. When well mixed, put in a bottle for use.

(4) The Scientific American Cyclopaedia gives the following under the title of Magic Polish for Brass: Sulphuric acid 20 parts, pulverized bichromate of potash 10 parts; dilute with an equal weight of water; apply well to the brass; wash well with water, immediately wipe dry and polish with rotten stone.

(5) Rotten stone 4 ounces, oxalic acid in fine powder 1 ounce, sweet oil ½ ounce, turpentine q. s. to make paste,

6218. Palatable Cod Liver Oil.

(J. M. S.)—According to a statement made by Eisenschitz a palatable cod liver oil can readily be prepared by mixing a solution of saccharin in acetic or strawberry ether with the oil. Only refined saccharin—that is, pure sulphimide of benzoic acid—answers the purpose. Saccharin is readily soluble in acetic ether, and the solution clearly miscible with cod liver oil. A cod liver oil is used which has been filtered a number of times through charcoal. The authority named recommends the preparation of four kinds of palatable cod liver oil, employing a 1 to 10 solution of refined saccharin in acetic or strawberry ether. For the first kind he uses 1 part of the saccharin solution to 50 parts of cod liver oil. A second kind is made by adding 2 drops of peppermint oil to every 100 grams of the sweetened oil. A third is made by using 3 drops of cinnamon oil to 200 grams of the sweetened oil, while a fourth is made by mixing with the oil a solution of saccharin in strawberry ether instead of that in acetic ether. The last preparation looks like a thin emulsion, but is claimed to be the most

palatable one of the four. The treatment of the cod liver oil with freshly burned charcoal, allowing it to remain in contact under the exclusion of air for some length of time, has considerable to do with one's success. It is stated that the treatment of good oil with the charcoal is enough in itself to remove every trace of disagreeable odor and taste, and that cod liver oil treated in this manner has a mild and agreeable taste and is distinguished by its stability.

See also query No. 5063, July 1, 1893, Era, page 15.

6219. Ink to Be Covered with Sizing.

(W. H. W.)—The following is said to produce a satisfactory article: Shellac 15 parts, borax 8 parts, gum arabic 8 parts, lamp black 10 parts, water 130 parts. Add the water to shellac and borax, both finely pulverized, and boil with constant stirring until all the shellac is dissolved. Filter the solution through blotting paper. Mix the gum arabic, in fine powder, with the lamp black in a mortar. Put the mixture of gum arabic and lamp black into the vessel used for boiling the shellac, borax and water, and after pouring some of the filtered fluid over it, heat to boiling. When all the gum arabic is dissolved gradually add, with constant stirring, the rest of the fluid and set the whole aside for a few days to allow the coarser particles of the lamp black to settle. The finished ink is carefully decanted or siphoned off from the sediment.

A very resistant writing fluid is also obtained by simply boiling shellac with water, the lamp black being only added to impart a darker color to the ink. As a substitute for the lamp black the decoction of shellac and borax may, after filtering, be mixed with a corresponding quantity of indigo-carmin, or of a very concentrated logwood chrome ink.

For red you can substitute eosin for the lamp black in the last formula.

6220. Root Beer Extract.

(W. D.)—The following formula may answer your purpose:

- (1)
- Fluid extract of American sarsaparilla, 10 fl. drams.
- Fluid extract pipsissewa, 10 fl. drams.
- Fluid extract wintergreen 4 fl. drams.
- Fluid extract licorice, 4 fl. drams.
- Oil of wintergreen, 48 minims.
- Oil of sassafras, 24 minims.
- Oil of cloves, 12 minims.
- Alcohol 10 fl. ounces.

Mix 9 gallons of warm water, 1 gallon of refined molasses and 1 quart of yeast; add the above "extract" and set aside in a warm place to ferment. The yeast and fermentation may be omitted the extract being mixed with 10 gallons of water charged with gas and drawn from an ordinary soda fountain.

Here is another formula taken from the Era Formulary:

- Oil wintergreen 4 ounces.
- Oil sassafras 4 ounces.
- Oil anise 2 ounces.
- Oil orange 2 ounces.
- Oil nutmegs 4 drams.
- Oil cloves 4 drams.
- Tincture vanilla 1 pint.
- Fluid extract sarsaparilla 4 pints.
- Fluid extract licorice, 4 pints.
- Fluid extract ginger, 2 pints.

Fluid extract albaea 2 pints.
 Fluid extract angelica 8 ounces.
 Fluid extract soap bark 8 ounces.
 Syrup 30 gallons.
 Syrup 30 gallons.

A "head" or "foam" may be given to beverages by adding a solution of gum arabic, gelatin, egg, albumen or infusion of soap tree bark to them before they are carbonated. Beverages made from drugs rich in saponaceous principles, like sarsaparilla, ginger, etc., rarely need any additions to make them hold their "foam" when drawn.

6221. Black Lead for Pencils.

(J. A. C.)—Black lead for pencils is usually prepared by one or other of the following methods:

(1). The blocks of plumbago are exposed to a bright red heat in a closely covered crucible, and are afterward sawed into minute sticks and mounted in cases of cedar or satin wood.

(2). The plumbago, in powder, is calcined as before and then mixed with an equal or any other desired proportion of pure washed clay, also in powder, after which the mixture is reduced to a plastic state with water and pressed into grooves cut on the face of a smooth board or into well-greased wooden molds, in which state it is left to dry. When dry the pieces are tempered to any degree of hardness by exposing them, surrounded by sand or powdered charcoal, to various degrees of heat. The crucible is not opened until the whole has become cold, when the prepared "slips" are removed and mounted as before. This method was invented by M. Conte in 1765.

(3). The dough or paste prepared as last is reduced to the required form by forcing it through a perforated plate (in a similar manner to that adopted for colored crayons) or into minute metallic cylinders, from which it may be readily shaken after it becomes partially dry. The leads for some varieties of drawing pencils are immersed for a minute in very hot melted wax or suet before mounting them. To the composition for others a little lampblack is added to increase and vary the degree of blackness.

6222. The Manufacture of Oxygen and Peroxide of Hydrogen.

(S. C. E.)—So far as we are aware there is no one book devoted to the manufacture of either oxygen or peroxide of hydrogen. You will best gain a knowledge of the subject by consulting the files of different technical journals and books devoted to the subject of applied chemistry.

Oxygen may be obtained on a small scale very readily by simply keeping in a close retort a mixture of four parts of potassium chlorate and one part black oxide of manganese. If large quantities are desired the continuous process of T. Du Motay may be employed.

The process is thus technically described in the *Cyclopedia of Receipts*: "The principle resides in the fact that the manganates and the permanganates of potash, soda or baryta, the ferrates and the chromates of the same bases, and in general all metallic oxides and acids which will form, with potassa, soda or baryta, binary compounds capable of superoxidizing, possess the property of yielding their oxygen at a more or less elevated temperature when

they are submitted to the action of a current of steam. These bodies, thus deoxidized, also possess the property of reoxidizing themselves when they are exposed to a temperature more or less great. The atmosphere is therefore the constant source from which the oxygen is derived. The mode of operation is the following: One of the binary compounds just enumerated is placed in a distilling vessel, whether at the maximum or minimum state of oxidation. If the compound is in the latter condition it is oxidized by means of a current of air mechanically drawn over it. If at the former stage it is deoxidized by means of a current of steam. The oxygen and steam, on issuing from the mouth of the retort, pass together into a condenser, where the steam is separated by condensation, while the oxygen passes over into a gas holder and is there collected. When all the utilized oxygen has been disengaged by the steaming process the action of superoxidation by means of the air current is recommenced. By this alternate process the oxygen is generated as long as may be required."

See also Era of Sept. 1, 1893, page 202, and Era of Dec. 1, 1893, page 504.

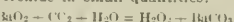
The preparation of peroxide of hydrogen commercially on a large scale is a complex process and hedged in with precautions to insure the production of an article of definite strength, purity and efficiency.

Hydrogen peroxide may be prepared—

1. By the action of dilute hydrochloric acid on barium peroxide, thus:



2. By passing a current of carbonic acid through water, and gradually adding barium peroxide in small quantities:



3. The most generally adopted, by decomposing pure barium peroxide with dilute sulphuric acid, thus:



Watts gives the following account of this manufacture, taken from Thénard: "Pure baryta is prepared by igniting, in a porcelain retort, nitrate of barium free from iron and manganese. The baryta broken into pieces about the size of a nut, is then put into a coated glass tube and heated to low redness, while a current of oxygen gas, free from carbonic acid and dried by means of quicklime, is passed over it. For the first eight minutes the gas is eagerly absorbed by the baryta. After it has begun to escape from the farther end of the tube (to which a glass delivery tube passing under water is fitted), the steam is still kept up for the space of ten or fifteen minutes. The peroxide of barium obtained by this process is, after cooling, preserved in a bottle. In the next place 500 grm. of water are mixed with as much hydrochloric acid as will neutralize 15 grm. baryta. Into the liquid, contained in a cylinder, or better, in a dish of silver or platinum, kept cool by surrounding it with ice, 12 grm. peroxide of barium, slightly moistened and rubbed up in an agate mortar, are introduced by means of a wooden spatula; on agitating or stirring the liquid with the pestle the whole dissolves completely and without effervescence. The baryta is next precipitated by sulphuric acid drop by drop till slightly in excess; the presence of an excess of the acid may be known by the sulphate of bar-

ium falling down more quickly than before. Twelve grm. more of the peroxide are then dissolved in the same liquid, and likewise precipitated by sulphuric acid. The liquid, which now contains hydrochloric acid, sulphuric acid, a large quantity of water and a small quantity of peroxide of hydrogen, is next separated from the sulphate of barium by filtration, the precipitate washed with a little water—and the last wash water retained for future washings. The filtrate is again mixed as above, twice with peroxide of barium and twice with sulphuric acid. The filtration is then repeated, and the process continued in the same way till 90 or 100 grm. of the peroxide are consumed. The liquid thus obtained would, on decomposition, yield 25 to 30 measures oxygen gas. To separate silica, alumina, sesquioxide of iron, sesquioxide of manganese, etc., which proceed from the porcelain retort in which the nitrate of baryta was ignited, the liquid is mixed with concentrated solution of phosphoric acid (2 or 3 parts of phosphoric acid to 100 parts of peroxide of barium), then surrounded with ice and supersaturated with powdered peroxide of barium; silica, and the phosphates of iron, manganese and aluminium, then separate rapidly in flakes, and must be removed from the liquid by filtration through linen, and if necessary through paper. The presence of a large quantity of sulphate of barium renders the filtration difficult (if no phosphoric acid were present the sesquioxides of iron and manganese would fall down by themselves and give rise to a rapid evolution of oxygen gas; but when they are mixed with phosphoric acid they do not produce this effect). Should the liquid contain portions of these oxides they must be separated by the addition of a slight excess of baryta water; whereupon the liquid must be immediately and rapidly filtered through several filters at once, and the filters squeezed between linen to get all out. The whole of the baryta must then be separated by carefully adding sulphuric acid in very slight excess and filtering. The filtrate now contains nothing but water, peroxide of hydrogen, hydrochloric acid and a very little sulphuric acid. To separate the hydrochloric acid the liquid is surrounded with ice and mixed with sulphate of silver. In the first place sulphate of silver, obtained by heating nitrate of silver in contact with oil of vitriol in a platinum crucible, is introduced in the form of powder into the liquid—the whole being constantly stirred till the liquid becomes clear, a sign that the hydrochloric is wholly or nearly precipitated. Any hydrochloric acid that may still remain must be separated by cautiously adding more sulphate of silver. If the latter has been added in excess it must be precipitated by carefully dropping in a dilute solution of chloride of barium. The liquid should contain neither hydrochloric acid nor silver, and should therefore give no precipitate, either with solution of silver or with hydrochloric acid. The chloride of silver is separated by filtration and pressure, any portion of liquid which comes through turbid being filtered over again. To remove the sulphuric acid, also, and obtain a pure mixture of water and peroxide of hydrogen, the liquid is placed in a glass mortar surrounded with

ice, and rubbed up with slaked baryta previously pounded and diffused through water; the baryta is added till the sulphuric acid is very nearly saturated. The liquid is then filtered, the water pressed between linen, and the baryta water added in slight excess. This often occasions the precipitation of oxide of iron and oxide of manganese, as well as sulphate of barium; hence the filtration must be rapidly performed. The excess of baryta is removed by cautiously adding dilute sulphuric acid, so that there may be rather a very slight excess of the acid than of the baryta. The whole of the sulphuric acid may likewise be removed by means of carbonate of barium obtained in a finely divided state by precipitation, instead of by slaked baryta and baryta water. Finally, to separate the whole of the water, the vessel containing the liquid is placed in a dish containing oil of vitriol, and the whole is put under the receiver of an air pump; the water then evaporates before the peroxide of hydrogen. The fluid is agitated from time to time. If it should deposit flakes of silica, which give rise to the escape of oxygen gas, it must be decanted off from them by means of a siphon; if it should evolve oxygen—which it will do as soon as it is so far concentrated as to contain about 250 times its volume of oxygen—two or three drops of sulphuric acid must be added to it. The concentration must be stopped after a few days, when the liquid is brought to such a state that when decomposed it would evolve 45 volumes of oxygen gas; for this residue if left longer in vacuo would evaporate as a whole. The peroxide of hydrogen must be kept in long glass tubes closed with stoppers and surrounded with ice; but even under these circumstances it decomposes slowly and evolves oxygen gas."

PHARMACY IN INDIA.—The great pharmaceutical establishments in India are arranged on lines somewhat different to those of European pharmacies generally, says a writer in the *E. and C. Druggist*. The orthodox counter and more or less beggarly array of more or less empty bottles are dispensed with, and elegant cases line the walls, and showcases are ranged on the usually marble floor of the spacious "hall"—it is not a shop—while in the centre is, perhaps, a large marble-topped table, at which either one or two assistants sit at the receipt of custom, which, in the establishments I have indicated, flows in unstintingly during the whole day, from about 10 o'clock in the morning till 5 in the afternoon. Every chemist's shop of whatever pretensions—European or native—has a doctor attached to it. As a rule he is one of the resident staff, and very often is he a partner. The general practice in the large firms is to give advice gratis. Some of them have large consulting practices, and the dispensing of the establishments to which they are attached is correspondingly extensive. In the large houses the dispensary is quite a distinct department from the rest of the establishment, thus avoiding all interruption to the ten, or twenty or thirty compounders during the preparation of medicines.

EXAMINATION QUESTIONS.

This Department is for the publication of questions and answers from our readers; the object being to place before them questions for self-examination and to indicate the directions in which study can be profitably carried on.

We solicit questions to which replies are desired, particularly questions suggested by personal experience and study.

Correct answers to the questions in each series will be published in a subsequent issue of the paper, as announced, together with the names of all persons sending us correct replies.

Write the number of the series at the top of your reply and write on one side of sheet only.

Address—EDITOR PHARMACEUTICAL ERA,
106 Fulton Street, New York.



WILBER SYLVESTER.

The gentleman standing highest in the competition of Series No. 3 of Examination questions was Mr. George Spearman of Social Circle, Georgia, but his portrait appeared very recently in these columns, and it was decided that, in this instance, the portrait of the gentleman who ranked second best should be presented. This individual is Mr. Wilber Sylvester, a resident of Port Huron, Mich. He was born on a farm near Toronto, Ontario, in 1870, being now, therefore, 24 years of age. His education was received in the public schools and afterward at the Collegiate Institute in Toronto. He entered the drug business through serving an apprenticeship with the firm of C. D. Daniels & Co. and later in the employ of W. Lloyd Wood, both of that city. Three years ago, in 1871, he graduated from the Ontario College of Pharmacy, receiving first-class honors, and later, in the same year, he went to Michigan and successfully underwent the examination of the Michigan State Board of Pharmacy. He has since been, and is still, in the employ of E. J. Rodgers at Port Huron, Mich.

ANSWERS TO EXAMINATION QUESTIONS, SERIES 3.

1. In what proportion must two quantities of powdered opium, containing 13.5 and 16 per cent. of morphine respectively, be mixed to produce 3 ounces of opium containing 14 per cent. of morphine?

Answer.—4 av. ozs. or 240 grains, of 13.5 per cent.

1.6 av. ozs. or 700 grains, of 16 per cent. or, giving the results in troy weight:

6.4 troy ozs. or 3072 grains, of 13.5 per cent.

1.6 troy ozs. or 768 grains, of 16 per cent.

This problem may be solved by alligation, and is explained as follows: The gain and loss of the percentage strength of the two quantities of opium used as compared with the mean percentage must balance. Hence, we compare a percentage less than the mean with one greater than it, or 13.5 per cent. with 16 per cent. On every part of 13.5 per cent. opium employed to make the 14 per cent. mixture there is a gain of 0.5 per cent.; on every part of the 16 per cent. opium used in the 14 per cent. mixture there is a loss of 2 per cent. of opium. As the gain and loss on equal parts of each are to each other as 0.5 to 2, we must take parts that are to each other as 0.5 to 2, or (reducing the numbers to integral quantities), as 1 is to 4. Using the proportions obtained to make an 8-ounce mixture, we have found that for every part of 16 per cent. of opium employed there must be taken 4 parts of 13.5 per cent. opium. Then 8 ounces must be 1 + 4 parts or 5 parts. If 8 ounces be 5 parts, then 1 part will be 1.6 ounces, or 1.6 ounces, the amount of 16 per cent. opium to be employed. Four parts will equal 4-5 of 8, or 6.4 ounces, the amount of the 13.5 per cent. opium to be employed. The results are easily reduced to grains, remembering that a troy ounce contains 480 grains and an avoirdupois ounce equals 437.5 grains.

2. A quantity of official sulphuric acid weighs 15 grams. How many cubic centimeters does it measure? A quantity of official nitric acid measures 25 cubic centimeters. How much does it weigh in grams? In grains?

Answer. 15 grams official sulphuric acid (sp. gr. 1.835) measure 8.17 + centimeters.

Twenty-five cubic centimeters official nitric acid (sp. gr. 1.414), weigh 35.35 grams, or 545.5212 grains.

Demonstration: The specific gravity of official sulphuric acid is stated at 1.835, or, in other words, sulphuric acid is 1.835 times heavier than the same volume of distilled water at 15 degrees C.

If 1.835 grams of sulphuric acid measure one cubic centimeter, then 15 grams will measure as many cubic centimeters as 1.835 is contained in 15, or 8.17 + cubic centimeters.

The second part of the problem is the reverse of the first, in that weight instead of volume is sought. Official nitric acid has a sp. gr. of 1.414, or is 1.414 times heavier than an equal volume of water at standard temperature. Then, if 1 cubic centimeter of nitric acid weighs 1.414 grams, 25 cubic centimeters will weigh 25 times as much, or 35.35 grains. Converting this quantity into grains (1 gram equals 15.4324 grains), we have 545.5212, the weight of 25 cubic centimeters of nitric acid in grains.

3. How would you distinguish between a root and an underground stem?

Answer.—A root has characteristic functions. It supports the plant in position and fixes it in the soil. It absorbs from the soil the food necessary for the growth of the plant, while the stem is but the connecting link between the roots and the

leaves. The root is the descending axis of the plant, while the stem is the ascending axis. The root bears no leaves; the province of the stem is to bear leaves. Roots have no growing nodes or internodes, while the stems always possess them. Roots branch very indefinitely, stems branch definitely and regularly. An underground stem is merely a creeping stem or branch growing beneath the surface of the soil, or partially covered by it. An underground or subterranean stem may be distinguished from a root by the fact the former bears scales or scars, in the axils of which buds occur showing the scales to be leaves; whereas roots bear neither leaves nor axillary buds.

The growing point of the root is back of the apex, or, as termed by botanists, abupical; that of the stem is at the apex, or apical. Roots have their tenderest cells covered by a "root cap," which enables them to penetrate the hard soil without risk of injury. Roots always grow from stems. Stems do not grow from roots.

4. Which contains the larger percentage of alcohol—a solution made from equal parts by weight of alcohol and water, or one made from equal parts by measure of alcohol and water?

Answer.—A solution made by mixing equal parts by weight of alcohol and water contains a larger percentage of alcohol than does a solution made from equal parts by volume of alcohol and water.

Demonstration: A liter of alcohol weighs less than a liter of water, hence alcohol has a lower specific gravity than water. Official alcohol contains 91 per cent. by weight, or 94 per cent. by volume of absolute alcohol, and about 9 per cent. by weight of water. Weighing out a convenient quantity, say 500 grams, we have in reality only 455 grams of absolute alcohol and 45 grams of water. To the 500 grams of alcohol thus taken we add 500 grams of water, a solution is obtained weighing 1,000 grams, of which but 455 grams is alcohol. Reducing this amount to per cent. $(455 \div 100) \times 1000$ we have 45.5, or the percentage of absolute alcohol in a solution made from equal quantities by weight of alcohol and water. Taking a convenient quantity of official alcohol by volume, say 500 cubic centimeters, we find it to weigh (500×0.820) specific gravity, 410 grams; of this solution only 91 per cent. $(410 \div .91)$, or 373.10 grams, is absolute alcohol. To the alcohol we add 500 cubic centimeters of water, weighing 500 grams at a standard temperature, which gives us a solution weighing 910 grams, 373.10 grams of which is absolute alcohol. Reducing this quantity to percentage $(373.10 \div 910) \times 100$, we get 41, or the percentage of absolute alcohol in a solution made from equal quantities by volume of alcohol and water.

5. What is the percentage of bromine and how many grains of bromine are there in one ounce of potassium bromide?

Answer.—67.143 per cent. of bromine.

One troy ounce of potassium bromide contains 322.28 grains bromine.

One avoirdupois ounce contains 233.75 grains of bromine.

The first step in the solution of the problem is to find the molecular weight of the potassium bromide. This is done in this and other similar problems by writing down the symbols of the various elements of the compounds concerned in the calculation under each other, placing the atomic weights on their right, not forgetting to multiply the atomic weights by the number of atoms where more than one atom of any element is present. Next add up the numbers to obtain the molecular weight, or weight of a single molecule. Thus

$$\begin{array}{r} \text{K} = 39.10, \\ \text{Br} = 79.76, \\ \hline \text{K Br} = 118.79. \end{array}$$

Therefore, 118.79 parts (ounces, pounds, tons or grains) of K Br yield 79.76 parts of bromine. Then, by simple proportion, we obtain the per cent. or parts in a hundred as follows: 118.79 : 79.76 : 100 : X, or

$$\frac{79.76 \times 100}{118.79} = \frac{7976}{118.79} = 67.143 \text{ per cent.}$$

In a troy ounce there are 480 grains; in an avoirdupois ounce, 437.5 grains. If 67.143 per cent. of potassium bromide be bromine then in a troy ounce there is $(480 \times 67.143 \div 100)$ 322.28 grains of bromine. In an avoirdupois ounce $(437.5 \times 67.143 \div 100)$ 293.75 grains of bromine.

These results may be obtained by reducing the quantities to unity. Going back to the molecular weight of potassium bromide we get the data for this question. If 118.79 parts of potassium bromide yield 79.76 parts of bromine, what will 1 part yield? To obtain this we divide 79.76 by 118.79, or $\frac{79.76}{118.79}$. Then if 1 part yields $\frac{79.76}{118.79}$ what will ounce or 480 grains yield? Evidently $\frac{79.76}{118.79} \times 480$, or $\frac{38284.8}{118.79}$ — means, exactly the same result we obtain by the first method. $(322.28 \div 100) \times 480 = 322.28$ — grains, exactly the same result we obtain by the first method. $(437.5 \text{ grains} \div 100) \times 67.143 = 293.75$ yield $\frac{79.76 \times 437.5}{118.79} = \frac{79.76 \times 437.5}{118.79} = 293.75$ grains.

If we illustrate in the same way the percentage of potassium in potassium bromide, the two results should add up 100. Let us see if they do: $118.79 : 39.10 : 100 : X = 32.854$ per cent. of potassium in potassium bromide; $67.143 - 32.854 = 34.289$, which is close enough to be correct. If 1 part of potassium bromide contain 32.854 per cent. of potassium, 480 grains will contain $(480 \times 32.854 \div 100)$ 157.6992 grains potassium. Let us add this amount to the bromine previously obtained, we have $322.286 + 157.699$, or 479.985 grains, or approximately 1 troy ounce. In an avoirdupois ounce potassium bromide there are 143.932 grains potassium; adding this to the 233.75 grains Br we get 437.682.

6. What is an alum, chemically considered? Write the chemical symbols for two alums not containing aluminum. Name the pharmacopoeial and other varieties of alum.

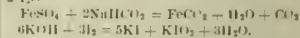
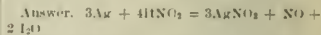
Answer.—An alum was formerly defined to be a double sulphate of aluminum and one of the alkali bases. The term is now used by chemists, however, in a more comprehensive and general sense, and is made to include all of the double sulphates having a similar chemical structure. All alums crystallize

in cubes and octahedra with 24 molecules of water. There are many alums isomorphous with potassium alum, as K in that alum may be replaced by Na, Li, Cs, Rb, Ag, Tl, or NH₄. The official alum (alumen or potassium alum) has the formula $\text{Al}_2\text{K}_2(\text{SO}_4)_6 \cdot 24\text{H}_2\text{O}$. Chemical symbols of two alums containing no aluminum; $(\text{NH}_4)_2\text{Fe}_2(\text{SO}_4)_6 \cdot 24\text{H}_2\text{O}$ ammonio-ferrous alum, and $(\text{NH}_4)_2\text{Cr}_2(\text{SO}_4)_6 \cdot 24\text{H}_2\text{O}$ chromium alum.

There are two pharmacopoeial alums, potassium alum and ammonio-ferrous alum.

The Pharmacopoeia mentions only one variety of potassium alum, viz., Alumen Exsiccatum, dried or burnt alum.

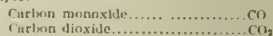
7. Complete the following chemical equations:



8. What is meant by the following prefixes used in the nomenclature of salts: Mono, bi, bin, tri, quadri, di, bis, ter, tetra, super, hyper, per, aequali, sub, hypo, proto, ortho, meta, pyro, para.

Answer.—The technical names of chemical compounds are generally constructed out of the names of their constituent elements, based upon their arrangement in a molecule, their sources, properties, or other facts or conditions relating to their chemical origin or application.

Bi, bis or bin, ter or tri, quadri, etc., are numeral prefixes of Latin origin, while mono, di, tri, tetra, are of Greek origin. They are used to denote various proportions of constituents, and the position of various compounds in a series; for example:



There is no rule as to the use of the Latin or the Greek forms. Taking the other prefixes in the order outlined in the question, super means above, over, or in excess, thus a super oxide means a higher oxide. Hyper, Greek, over, refers to the converse of hypo (see hypo). Thus hyper-sulphurous acid denotes an acid containing more oxygen than sulphurous acid.

Per, meaning through, to the full extent, denotes the highest compound in a series; for example, a peroxide signifies that oxide which contains the largest quantity of oxygen in a series of oxides; thus, peroxide of hydrogen H_2O_2 , oxide of hydrogen H_2O , or water.

Sesqui, half as much more, or one and a half, denotes a compound where the relation of the elementary atoms is as 2 to 3; for example, sesquioxide of iron (really ferric oxide) has the formula Fe_2O_3 .

Sub, under, or below, implies that the compound contains less of a constituent than is indicated by the rest of the word. Thus, subnitrate of bismuth, $\text{Bi}_2\text{O}_3\text{NO}$; nitrate of bismuth $\text{Bi}_2(\text{NO}_3)_6$.

Hypo, Greek, under, denotes the position of a compound. Thus the acid containing less oxygen than sulphurous acid, $\text{H}_2\text{S}_2\text{O}_3$.

Proto, Greek, denotes the first of a series of compounds; for example, the protoxide of iron, FeO (also called ferrous oxide), contains the smallest quantity of oxygen of any iron and oxygen compound.

Ortho, Greek, denoting right, regular, straight, normal, true or original. Thus

orthophosphoric acid, H_3PO_4 , is the regular, normal (pharmacopœial) acid.

Meta signifies near to, derived from, deviating, altered or different. Thus metaphosphoric acid, $H_3P_3O_6$, differs from orthophosphoric acid, $H_3P_3O_4$, only by the amount of water it contains.

Pyro, produced by fire or high heat. Thus pyrophosphate of sodium is so called in allusion to its origin, *pur*, a Greek word, meaning fire. If ordinary phosphate of sodium $Na_2HPO_4 \cdot 12H_2O$ is heated in a crucible, the water of crystallization is first evolved, dry phosphate of sodium Na_2HPO_4 remaining. Continuing the heat to redness, two molecules of the salt yield one molecule of water and pyrophosphate of sodium, a salt having new properties, is obtained ($2Na_2HPO_4 - H_2O = Na_2P_2O_7$). Other pyrophosphates are produced in a similar way, or by double decomposition and precipitation.

Para signifies equal; example, paracyanogen implies a body chemically equal to cyanogen. Aldehyde has the formula C_2H_4O and paraldehyde, which has different properties, is $(C_2H_4O)_3$, but the difference between them arises from the internal structure.

9. What are the chemical differences between red and yellow oxides of mercury? Give the chemical formula for each.

Answer. Yellow mercuric oxide differs only from the red by being amorphous, and in a much more minute state of division. Both have the chemical formula HgO . In consequence of the different state of aggregation of the yellow oxide, it presents some peculiarities in its chemical relations. It is much more quickly acted upon by reagents than is the red oxide. Oxalic acid, which acts on the red oxide only with the aid of heat, immediately combines with the yellow oxide at ordinary temperature, producing the white mercuric oxalate. It is this reaction upon which is based the pharmacopœial identity test. Yellow oxide of mercury in contact with chlorine, gives up oxygen to that element, forming hypochlorous acid and corrosive sublimate. The red oxide is influenced but little by chlorine at common temperatures.

10. Which contains the more quinine (alkaloid), quinine bisulphate or quinine sulphate? Give the percentage of quinine in each salt and exhibit the figures used in your calculations.

Answer. Quinine sulphate. Quinine sulphate contains 74.31 per cent. Quinine bisulphate contains 59.124 per cent.

Demonstration. Quinine bisulphate, according to the United States Pharmacopœia, has the formula $C_{20}H_{24}N_2O_2 \cdot H_2SO_4 + 7H_2O = 546.88$; that of anhydrous quinine (alkaloid), $C_{20}H_{24}N_2O_2 = 323.34$. As we have found (question 5, this series), chemical symbols represent definite weights, or atomic weights, and they enable us to calculate the percentage of any ingredient in the compounds they represent. These calculations are all based upon the atomic weights from which the molecular weights are derived. The molecular weight of quinine bisulphate is 546.88.

C_{20}	= 239.40
H_{24}	= 24
N_2	= 28.02
O_2	= 31.82
H_2SO_4	= 97.82
$7H_2O$	= 125.72

546.88

The molecular weight of anhydrous quinine, obtained in the same way, is 323.34. On inspection, we see that

$$\frac{323.34}{546.88} : 100.0 :: X : 59.124$$

of the whole quantity is alkaloid quinine. Stated in the form of a proportion, this would be 546.88 : 323.34 :: 100.0 : X = 59.124 per cent. In this proportion, the fourth term must bear the same relation to the third that the second does to the first. From this statement we easily deduce the following rule for the statement of similar problems: As the formula of the substance given is to the formula of the substance required, so is the weight of the substance given, to X, the weight of the substance required. Reduce the formulae to their numerical equivalents, and find the value of X. When three terms of a proportion are given, the fourth may be found by multiplying the two means (second and third terms), and dividing the product by the given extreme. In calculating the per cent. of any ingredient by the above rule, the weight given is understood to be 100-l. e., per cent. is parts per hundred. Let us again try this rule in estimating the percentage of quinine in quinine sulphate. Examining the chemical formula of quinine sulphate, we find it contains two equivalents of quinine in each molecule of the salt. We have already found the molecular weight of alkaloid quinine to be 323.34. Adding up the atomic weights of the elements constituting the molecule of quinine sulphate (as we did in the case of quinine bisulphate), we get the molecular weight, 870.22. Of this two equivalents

$$\frac{323.34 \times 2}{870.22} = \text{alkaloid quinine, or } 74.31\%$$

or $\frac{646.70}{870.22}$. Stated in the form of a proportion we have 870.22 : 646.70 :: 100 : X = 74.31 +

COMMENTS ON ANSWERS TO SERIES NO. 3.

(1) This question was quite generally answered correctly, but very few writers made any attempt to explain the manner in which they obtained the results. Therefore, in addition to the explanation embodied in the answer, it seems wise to present the following rules for ascertaining the quantities of drugs of different percentages or strengths necessary to produce a mixture of any intermediate strength, and also for liquids where no change of volume results from mixing. Write the percentages of the different ingredients in a horizontal row, connect with a line each percentage which is greater than that of the mixture sought with one that is less, and each one that is less with one that is greater, then write the difference between the percentage of the mixture and that of each ingredient under the percentage of the other ingredient with which it is connected by the line. These figures thus placed under each percentage will indicate the proportionate parts of each ingredient to be used.

In applying this rule to liquids, specific gravity comes into use. Using the same formula as above, substituting, however, the specific gravities of the liquids in question for the percentages, we arrive in the same manner at the proportionate parts of the liquids to be mixed. Mixed liquids which contract may be allowed to stand until the contraction ceases, when sufficient liquid is to be added to make up the desired measure.

It is obvious, where there are more than two ingredients, there will be an indefinite number of ratios. Either one of the ingredients of lesser strength than the mixture may vary, and accordingly one or more of the ingredients must vary correspondingly. For application of this rule see full answer to question (1) elsewhere.

(2) This question proved a stumbling block to many because of their seeming incomprehension of the relation between weight and volume. One writer based his calculations upon the weight of water at its maximum density (5 degrees C.), but did not know the specific gravity of the acids at 0 degrees C. He seems unaware of the fact that in these computations the same degree of temperature must be used for all the substances. The pharmacopœia having adopted the standard temperature of 15 degrees C., this should be employed for all specific gravities and volumetric operations. Others used the specific gravities of former editions of the pharmacopœia, while some exercised their own sweet will in employing specific gravities which are not found to be directed by any authorities. It is understood throughout of all these questions that the U. S. P. is the standard in all cases.

(3) Very generally correctly answered. One answer brings out a quite important difference between a root and an underground stem in the statement that the latter has a pith and the former none. To be sure this difference cannot always be depended upon, from the fact that the pith may be very rudimentary. The same writer asserts that roots are destitute or nearly so of chlorophyll.

(4) Nearly all the answers were correct, but very few made any attempt to explain the reasons or the steps of their calculations. It is well to remember that a mixture of alcohol and water contracts in volume, quite appreciably so, and in some calculations this contraction must be taken into consideration.

(5) A few answers demonstrated ignorance of the distinction between atomic and molecular weight. The atomic weight is that of the smallest indivisible portion of an element (referred to hydrogen as unity) which can take part in a chemical change. The molecular weight is the sum of the weights of the atoms which make up the molecule of a compound substance.

(6) Some quite amusing definitions of an alum were received, one writer saying that, chemically considered, alum is an element. Another gave alum root as a variety of alum. The word alum is now a misnomer. It merely represents a type of chemical combination; a double sulphate of a metal having the same quantitative as aluminum and a monad base, generally an alkali. It is well to point out that in the last two revisions of the pharmacopœia (1830 and 1890), potash alum has been the official product in place of the former official ammoniac alum. The French and German pharmacopœias agree with our own in recognizing the potash alum, but the British gives favor to the ammoniac alum.

(7) To our mind this question has proven the most interesting and instructive of the series. It showed conclusively whether the writer knew or did not know how to write an ordinary chem-

ical equation. Those who did not know invariably made a simple double transposition of bases and acid radicals. Our answer to this question gives the correct products in each equation. For the first, many stated the products were $\text{AgNO}_3 + \text{H}$. There is no evolution of hydrogen in this instance. With the second all were able to give the primary product as FeCO_3 , but a number were greatly at sea with reference to the bi-products. Some attempted to get out of the difficulty by writing down NaCl H_2O (acid sodium sulphate). In the third equation those who did not know gave the products as $\text{KI} + \text{H}_2\text{O}$, not appreciating the fact that HIO is incapable of independent existence, and is merely a hypothetical combination used for convenience. A few practiced analysis to a little greater extent and divided the HIO into $\text{H} + \text{O}$.

(9.) Generally correctly answered. The question did not call for the method of manufacture, though a few answers gave a detailed description.

(10.) In this instance, the quinine must be calculated as anhydrous quinine, while the sulphate and bi-sulphate are computed as the official salts containing water of crystallization. Some used the old atomic weights in computing molecular weights. The U. S. P. is the authority. In some instances a little carelessness was displayed, the writer using the molecular weight as given in the 1890 U. S. P., but in calculating the percentage composition of the molecule employed the old atomic weights. Some disregarded in their calculations the water entering into the molecules of the salts, basing their computations on the molecular weights of dry, anhydrous salts.

SUCCESSFUL.

The Following Correctly Answered Eight or More of the Questions in Series No. 2.

Boberg, Otto, Eau Claire, Wis.
 Bonnett, W. H., Brookville, Pa.
 Brooks, Lou, Waelder, Texas.
 Cawing, C., Henrietta, Mich.
 Coman, Geo. E., Natick, Mass.
 Curry, F. R., Minden, Ont.
 Diehl, J., 240 Elliott st., Buffalo, N. Y.
 Dolan, F. L., Freeman, Mo.
 Fisk, Burt, Edwardsburg, Mich.
 Garbhoener, Henry E., Boonville, Mo.
 Gofwin, Jno. L., 30 Gorsuch ave., Baltimore, Md.
 Happe, Walter C., Sandler, Republic Co., Kansas.
 Heinzl, Henry, West Superior, Wis.
 Hewitt, Herbert W., Milford, Mich.
 Hurd, John C., Somersworth, N. H.
 Jongjan, C. H., Zealand, Mich.
 Knowlton, C. M., Evansville, Ind.
 Lindbo, J. A., Petersburg, Neb.
 Modajesky, E. H., Ironwood, Mich.
 Palmer, Chas., Hennessey, Okla.
 Patterson, H. O., Atlantis, Ia.
 Perlman, B., 638 South st., Philadelphia, Pa.
 Rich, Willis S., Olean, N. Y.
 Spearman, Geo., Social Circle, Ga.
 Stanton, John A., Hanover, N. H.
 Sylvester, Wilber, 97 Military st., Port Huron, Mich.
 Tonner, W. M., Randolph, Neb.
 Thrush, Morris C., 33d and Haverford sts., Philadelphia, Pa.
 Wahmbro, Frank S., Delphos, O.
 Williams, C. A., Greenville, Ky.

SERIES NO. 4.

Replies should reach us not later than June 15, 1894. Correct answers, together with the names of all persons answering correctly eight or more of the questions will be published as soon thereafter as possible.

- (1) How would you distinguish between carbolic acid and creosote?
- (2) What is a symbol, also what does a chemical formula represent?
- (3) How would you prove that the specific gravity of iron is 7.5?
- (4) Define stigma, and mention a drug which the pharmacopoeia directs shall consist wholly of stigmas?
- (5) How would you distinguish between gallic and tannic acids?
- (6) Name the best excipient for a pill mass with each of the following: An essential oil, potassium permanganate, balsam copaiba, silver nitrate, corrosive sublimate.
- (7) How would you dispense the following prescription?
 Ferrous sulphate ʒ grains.
 Potassium carbonate..... ʒʒ grains.
 Mix, and divide into 24 pills.
- (8) How many one-eighth grain doses should there be in one-eighth ounce bottle morphine sulphate as found in the market?
- (9) What is an alcohol chemically considered? Name those covered by your definition that are official in the United States Pharmacopoeia.
- (10) How would you prove the air to be a mixture and not a chemical compound?
- (11) What is the difference between benzol and benzol?

SERIES NO. 5.

Replies should reach us not later than July 15, 1894. Correct answers, together with the names of all persons answering correctly eight or more of the questions, will be published as soon thereafter as possible.

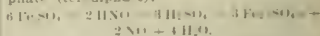
- (1) How many grams of official acetic acid can be obtained from 500 grams of sugar of lead? How many grams of official sulphuric acid is required to decompose this amount of sugar of lead, and what would be the weight of the lead sulphate formed?
- (2) What do you understand by the terms oxidation and reduction as employed in chemistry? Complete the following equations, noting the oxidation or reduction changes, if any:

$$\text{H}_2\text{SO}_4 - \text{HNO}_3 =$$

$$\text{H}_2\text{SO}_4 - \text{KI} =$$

$$\text{Fe}^{+2} - \text{H}_2\text{S} =$$
- (3) How many avoirdupois pounds of U. S. P. sodium carbonate are required to precipitate 100 troy pounds of calcium chloride?
- (4) Given a mixture of copper acetate and silver nitrate in solution. Map out a scheme of qualitative analysis, which shall detect and identify these bases and acids and which shall guard against the presence of other bases and acids. Explain briefly the reason for each step in the analysis.
- (5) Express this prescription in the metric system. Criticise it fully:
 Quinine sulphate, 25 grains.
 Sulphuric acid, 10 drops.
 Potassium chloride, ʒ iij.
 Syrup of orange peel, 2 ounces.
 Water enough to make 4 ounces.

(6) The following equation expresses the chemical change that takes place when ferrous sulphate is oxidized by nitric acid in presence of sulphuric acid to form ferric sulphate (ter sulphate):



Using 150 grams of official ferrous sulphate, how many grams each of official nitric acid and official sulphuric acid will be required for complete oxidation and how many grams of tersulphate would be the theoretical yield? Write out the calculations in full and show the methods employed.

(7) In adjoining drawers in a drug store were kept respectively Glauber's salt and sal soda. In some way the labels have been removed and the druggist wishes to identify the contents of each drawer. How may he best do it?

(8) A druggist has two avoirdupois pounds of red cinchona bark which shows upon assay 25 per cent. of quinine alkaloid. How many grams of official quinine sulphate should he theoretically be able to obtain from this bark? Exhibit the figures used in calculations.

(9) How would you distinguish between antipyrin and acetanilid? Between bismuth subnitrate and calomel?

(10) Convert the quantities in the following formula into their equivalents in apothecary's system.

Tincture of ferric chloride..... 1 cc.
 Dilute acetic acid 1.5 cc.
 Solution of ammonium acetate..... 10 cc.
 Aromatic elixir 5 cc.
 Glycerin 6 cc.
 Water, sufficient to make..... 50 cc.

Point out the chemical reactions, if any, which take place.

TO BRONZE LEATHER, WOOD, ETC., bronze powder may be suspended in a 5 or 8 per cent. tannin solution. The latter does not spread as readily as oil does and the tannin bronze is therefore especially adapted for bronze lettering.

AMMONIATED GLYCERYRHIZIN.—In the making of this scale compound the final solution should not be evaporated by heat—spontaneous evaporation yields the largest, clearest and most readily soluble scales. Pharmacists can profitably make their own supply of this preparation.

VALUATION OF PEPSIN.—At the end of the process for the valuation of pepsin the Pharmacopoeia states in parentheses that "trustworthy results, particularly in comparative trials, will be obtained only if the temperature be strictly maintained between the prescribed limits and if the contents of the flasks be agitated uniformly and in equal intervals of time." This caution ought rather to be in bolder type than in parentheses, for upon it depends largely the success of the operation. An increased temperature beyond the prescribed limits, up to 113 deg. F., and too frequent agitation will usually retard the disappearance of the albumen for from one to two hours, or yield entirely unsatisfactory results. A temperature below 93 deg. F. will also impede the digestion of the albumen to a greater or lesser extent. Digestion carried on in a wide, flat-bottomed flask, so that the layer of the mixture is not deep, at a temperature of 100 deg., without agitation, yields the speediest results.

NEWS COMMENT.

The cut-rate war is reported to have ceased in Haverhill, Mass.

John W. Burke, a long-time New Haven druggist, died of heart disease May 6.

Druggist A. L. Boehmer of Cincinnati has been granted a decree of divorce from his wife.

A wholesale drug house is proposed for Houston, Tex., which will be a go as soon as \$100,000 worth of stock is sold.

W. G. Thomas, a San Francisco druggist, has been found guilty of desertion of his wife, and sentenced to imprisonment.

A Spencer (Ind.) druggist calls special attention in his advertisements to the fact that he has all kinds of poison for sale cheap.

In Scranton, Pa., the druggists are arrested for selling soda water on Sunday, fined \$4, pay the fine, and the operation is repeated weekly.

The Excise Board of Newark, N. J., are attempting to compel pharmacists to pay \$250 a year for a liquor license. They haven't succeeded yet, but possibly may.

The growing of peppermint on a large scale has been instituted near Jackson, Mich., in a section where an attempt to raise the plant has never heretofore been made.

Druggist J. C. French, well known for years in Indianapolis, has assigned for the benefit of his creditors. His liabilities exceed his assets by a very small amount only.

H. H. Merrhoff, a Richmond (Ind.) drug clerk, committed suicide last month with hydrocyanic acid because of his sensitiveness over reports that he had made a mistake in dispensing a certain prescription.

We have often heard of a landlady suing a boarder, but just now a Chicago druggist is suing his landlady. Charge, defective construction of building, whereby entrance of sewer gas caused illness in his family.

A Flushing (N. Y.) druggist had a valuable diamond pin stolen from him while on a street car. He chased the thief for a long distance, finally overtook him, but the jewel had disappeared. He still hopes to get it back.

The proprietor of a variety store in Warren, R. I., is charged by the health authorities with illegal practice of medicine. The prescriptions he writes are said to be peculiarly unique and wonderful in their construction.

A tale comes from Chicago, and we are inclined to think it a fairy tale, to the effect that a poor German of that city has sold his discovery of an invaluable cure for rheumatism to a syndicate for the very neat sum of \$1,000,000. It is worth it if he has found it, but we will wait a little.

Robert C. Dickinson is the name on a new sign over the store at 1120 State street, Erie, Pa., which for a number of years has been known as the Welch pharmacy. The store is furnished with shelf

bottles from the Dawes Manufacturing Co., the fountain is a Lippincott, and the show cases are of a new design manufactured by the Exhibition Show Case Co.

A plan worthy of imitation is that proposed by the Kentucky Pharmaceutical Association to more thoroughly introduce to the favorable attention of the medical profession the products of the National Formulary. Some sixty sample preparations made after the formulas in that work were furnished by different members of the association to a special committee, who will attend the next meeting of the Kentucky Medical Society, distribute the samples and call the attention of the physicians to the superiority of the preparations to the semi-secret and proprietary articles now flooding the market.

The Texas Pharmaceutical Association, at its recent session, unanimously resolved to exert every effort to have a bill passed by the next Legislature for the appointment of a State board of examiners in lieu of the district boards now in existence, said board to be selected from among twenty names suggested to the Governor by the State Pharmaceutical Association, and to meet at different points in the State. The payment of the salary of the registrar of the board is provided for by the payment of annual re-registration fees of \$1 by all druggists. The association mean business. One hundred and fifty dollars was appropriated to defray the expenses of the legislative committee, and Secretary Hoyer donated his salary to that purpose in case the treasury should not be able to stand this call upon it.

ROCHESTER, N. Y.—F. Scherer has opened a new pharmacy in the building recently occupied by the Wyeth Chemical Co., corner Jay and Child streets. W. E. Thrall will be manager.—Geo. Gillespie has moved his store from 410 to 448 Lyell avenue, where he has much larger quarters and an elegant new Tuff's fountain.—Dispensing medicines is sometimes a lucrative business. Some nine years ago Strassenburgh & Steele opened a small store at 254 West avenue. Three years later Mr. Steele sold his interest to Mr. Strassenburgh and opened a new store on East Main street, and later a branch on Clinton street. Mr. Strassenburgh also opened a new store at 413 West avenue, and both stores have done a thriving business. Two years ago he went into the manufacturing business, catering particularly to physicians. He now has two men on the road. The store at 260 West avenue has just been leased for a stock room.

AMERICAN PHARMACEUTICAL ASSOCIATION.

The A. P. A. will begin its forty-second annual meeting in Asheville, N. C., the first Monday in September, and it could not have selected a better place. "Girt round with rugged mountains," the "Queen City" of the "Land of the Sky" is with-

out a peer either in this country or abroad. Asheville is situated in the heart of the Blue Ridge Mountains, in the extreme western section of North Carolina.

It is this section that Christian Reid, Charles Egbert Craddock, Francis Hodgson Burnett and Bill Nye have made famous by their writings. Climatic conditions are most favorable. The nights are cool and the days never uncomfortably warm. Hotel service is unsurpassed; the Battery Park, Swannanoa, Berkeley, Oaks, Oakland Heights and Kenilworth Inn are all first-class hotels, conducted in the most approved style. Electric car lines reach all parts of the city, and a dummy railroad conveys the sightseer to the top of Sunset Mountain, a commanding elevation 1,200 feet above the town.

Asheville is easy of access from all parts of the United States, being twenty hours by rail from New York, sixteen hours from Baltimore, twenty-four hours from Chicago and New Orleans and St. Louis, and fourteen hours from Cincinnati and Jacksonville. It has a population of about 12,000 made up, to a great extent, of people from all over the United States. Many beautiful residences adorn the principal streets and occupy picturesque sites on elevations commanding the city. It is in Asheville that Mr. Geo. Vanderbilt is erecting a country residence, which promises to surpass almost anything in this country. Four million dollars he has already expended, and it is estimated that six millions will be necessary to carry out his present undertakings. From the commanding elevation upon which his residence is in process of construction a grand panorama is spread out. The Black Mountains, where rises the beautiful Swannanoa, are to be seen to the northeast, Mount Mitchell, their highest peak, rising to a height of 6,700 feet above the level of the sea, and being the highest land east of the Rocky Mountains. To the west are Pisgah and the Balsams, to the south the Blue Ridge and to the north Asheville, and beyond the Smoky Mountains and Tennessee.

The local secretary, Capt. Whiteford G. Smith, and the various committees having the meeting in charge have already done much to make it a success. They invite and urge the members of the A. P. A. to come and see for themselves a country that nature has smiled upon, a country that is as beautiful in Winter as in Summer, and one whose people will welcome them with open arms, hoping that when after the association has completed its work its attendants will carry away with them kind and pleasant recollections of Asheville and the "Land of the Sky."

S. F. Luckenbach has removed his stock from Shawano, Wis., to Marinette, Wis., and reports good trade in his new stand.

E. D. Pardee, president of Wisconsin Pharmaceutical Association, Wausau, Wis., is visiting relatives in Ohio.

NEW YORK.

New York, May 26.—If you saw the "want supplement" issued a week ago Wednesday by The Era you probably noticed an article headed "A Drug Clerks' Club." It read as follows:

Do the drug clerks of New York and vicinity want to organize themselves into a club, and provide a clubhouse where they can have the necessary conveniences and comforts that such an organization would offer?

We have been requested by some of the prominent drug clerks of this city to agitate this question, and we would like to receive the expressions of as many drug clerks as are interested in this subject.

If the responses are liberal enough and indicate that the drug clerks of New York city and vicinity want a clubhouse where they can meet one another and enjoy the comforts and conveniences of such an organization, we will agitate the matter further and call a preliminary meeting.

Address all communications to Drug Clerks' Club, care of Pharmaceutical Era.

It seems from the talk of a number of gentlemen in the trade that this question is not so much a matter of "want" as of ability to support such an organization. There can be no doubt that a drug clerks' club in this city is very much desired and is needed, would do much good and could be made a strong institution. Yet there is this one thing necessary: the drug clerks must support such a club themselves, without any outside aid, must show their interest by promptly paying dues and by attending the meetings and visiting the clubrooms. Several attempts have been made to start such a club, but they never amounted to anything. A drug clerk talked for an hour one day to The Era man on this subject, and if the majority of clerks in this city think as he does there never will be a successful drug clerks' club here during this generation. His plan was to get the manufacturers and wholesale drug men to help support the club. It cannot be done that way. The clerks must support the institution themselves from start to finish or it will go under. With that understood at the start and the club organized on such a basis there is no reason to question its success or popularity.

Readers of The Era will remember an item in these columns a few weeks ago which told of the death of a once popular organization of druggists who loved to meet and indulge in bowling. This organization was in existence ten years and many men in the trade were sorry to see it go under. But one by one the members dropped out. Some married, some left the business entirely, others for various reasons found they had no time to devote to the meetings. Before you send in your letter to The Era think the matter over. If such a club is formed, have you money enough to spare to pay your dues? Have you time to devote to its meetings and to visit the rooms? If you cannot answer the first of these questions of course you couldn't join. If you cannot attend meetings or visit the club at least once in two weeks, of what value are you as a member?

Among the replies to the card in The Era the following may be quoted:

In reference to the organization of a drug clerks' club I think the idea is immense.

It would be the filling of a long-felt want.

Put me down as one of your supporters.

F. W.

Regarding your suggestion to form a drug clerks' club I wish to state that I for one would be greatly in favor of such an organization.

J. L.

Just the thing. Hope you will succeed. Willing to do my share.

H. F.

I have given this subject some thought.

By having men of influence take it up the club could be started on a good foundation. There are a great number of druggists in this city who have no home or social connections, consequently when off duty they have no place to spend their time. My idea is to have a clubhouse centrally located. Have a restaurant, reading rooms, bowling and other attractions. Have nominal dues and a small entrance fee, and have a record kept of all applicants for positions—a sort of employment bureau—so that if a drug house wanted a clerk this record could be consulted and the character of any man who sought the position could be at once ascertained. Such a club would soon become a home for the druggists of this city.

H. A.

M. Emil Utard, the representative of Victor Klotz, sole proprietor and manufacturer of Ed. Pinaud's Perfumes, has just returned from a three weeks' sojourn on the Pacific coast, where he was called to investigate charges of fraudulent imitations of Pinaud's goods against a number of retail dealers in that city. Although in nearly every other section of the United States the sale of these goods had been rapidly increasing, there has recently been so little increase on the Pacific coast that an investigation became necessary. Mr. Utard found that the trouble was not a decline in the popularity of the goods, but was due to wholesale substitution. During the three weeks he was on the coast he obtained undisputed evidence of willful substitution by some forty dealers, among whom were five manufacturers, who had been selling in an open way fraudulent imitations of Pinaud's cosmetic preparations, the bulk of sales having been of eau de quinine tonique, brilliantine and cosmetique. In the hands of one manufacturer of these spurious goods 50,000 cosmetique labels were found and seized. These labels were in close imitation of the genuine, though there were some slight differences in typography, which showed only on careful inspection. While much of the imitation preparations was refilled into bottles from which the genuine articles had been used, some of the manufacturers had even gone so far as to have bottles made with the name of E. Pinaud, Paris, molded in the bottle itself. Mr. Utard has directed Chokler, Thomas & Gregory, well-known lawyers of San Francisco, to bring suit against these dealers, and he informs us these suits will be pushed to the full limit of the law. The popularity of the Parfumerie Ed. Pinaud has brought out many imitations, and in New York city itself Mr. Utard has found it necessary

to take legal proceedings against a manufacturer of these imitations. A few cases have been unearthed in several Western cities, and in each of these cases Mr. Utard states that he will proceed against the offender with the utmost vigor. Great care should be, therefore, exercised in the purchase of all Pinaud's perfumes by the dealer, for even if the retailer is not aware of the fact that he is handling the imitations he might be put to very serious inconvenience and expense should he be detected in the sale of any imitation goods. In the case now in the courts of San Francisco, Mr. Utard states that the dealers were fully aware that they were handling spurious goods. Therefore they have to expect no clemency. Mr. Utard says he found business was very good on the coast, and that he had a pleasant journey going and coming.

Henry C. Miner's drug store, at the corner of Bowery and Spring street, is one that reflects credit on the popular theatrical manager. It is as neat and well arranged a store as can be found in a day's journey, and has as its manager a young man who takes as much interest in keeping it up to the highest standard as if it was his own place. He is George W. Hackenberger, a graduate of the Philadelphia College of Pharmacy and a capable and energetic man. He believes in making the store attractive, and succeeds so well that at times the presence of a couple of policemen is necessary in order that there shall be no lives lost in the crush at the doors. This may not sound serious, but as an actual fact there have been occasions when even the policemen were in danger of being squeezed out of shape. As the average New York policeman thinks more of his shape than he does of anything else in the world, this would have been a loss which no amount of damages could have compensated. However, when a Bowery crowd sees a soda mixer throwing the contents of a glass of soda behind his back into another glass without losing a drop it is apt to stop and investigate. The adept who took care of the soda counter last year was a chap who was at the head of his business. The manager makes it a point to have his window display each week of a novel nature. A week or two ago he took out the cashier's desk, which was at the Spring street corner of the store, and in the space thus afforded he backed in a two-horse wagon loaded down with boxes of Miner's Sarsaparilla. The wagon was a regular one, and the number of boxes it held was fifty. This display drew so large a crowd that a policeman's services were necessary in order to keep the sidewalk clear for those who didn't want to step out into the gutter. It is worth while to visit this drug store in the evening to see the electric light supply. The ceiling of the store contains 148 lamps, and altogether there are about two hundred lights. There is an admirable system of conducting business in all the departments, nowhere better shown, of course, than in the prescription office. This store was established in 1894, and was known from that time up to a year or so ago as Church's Pharmacy. It had never had any new blood until Mr. Miner took hold of the place, and since that

time the store has been a great success. It now does four times the prescription business it ever did before. Just as a sample of the amount of business that is done at the soda counter Manager Hackenberger stated that on a warm day there were no less than 1,500 glasses of soda drawn by his men.

Brent Good of the Carter Medicine Company has sent some copies of the London Morning Post to Joseph Toy. These papers contain two very interesting letters. One is from "The Honorable Secretaries of the National Society for Checking the Abuses of Public Advertising," and the other is a reply from Mr. Good, dated at the Hotel Victoria. The "Honorable, etc." (there is a lack of space in this issue), appeals for contributions to push a bill in Parliament doing away with the "abuses." Now, the Carter Medicine Company began about a year ago to put up board advertisements along the lines of certain railroads in England, the same kind as you will see along the Pennsylvania and New York Central roads here. This created a great deal of talk in the tight little Isle, and the society mentioned proceeded to try and stop it. Mr. Good's reply must have pleased our English cousins. He said that as this kind of advertising seemed to meet with objections on the part of some people the company would stop it upon the termination of the contracts already in force. Also, that if the farmers of the country had refused permission, of course the signs never would have been put up. This little touch ought to suggest to our English friends that they are being hit in a tender spot—the pocketbook.

Ed Huth of Rahway, N. J., has sold out to A. A. Kirchstein.

J. A. McDonagh is about to open a store at 506 Tenth avenue.

Dr. L. G. Casella will open a pharmacy at 118 Mott street in a few days.

Brent Good and John W. Cox are expected to return from Europe about the middle of June.

W. C. McPike, of McPike & Fox, Atchison, Kan., has been in town for a few days on business.

The adjective that best describes the bad character of the trade in May is never used in polite literature.

E. A. Sayre, of Seabury & Johnson, attended the meeting of the New Jersey Pharmaceutical Association.

Dr. Hayunza has removed his old stand to the corner of Canal street, No. 502. His former number was 500.

Wenzel & Raubenheimer have removed from Fourth and Willow streets, Hoboken, to 504 First street, in the same city.

Louis Dohme of Sharp & Dohme has been in town for several days on business. He is on his way to Chicago.

There are to be no examinations held by the New York City Board of Pharmacy until the second Monday in September.

It seems to be the general impression among those interested that the law governing the shipment of acids needs modification.

Herbert D. Robbins of the firm of McKesson & Robbins sails for Europe to-day, May 26, to be gone for six weeks on a pleasure trip.

The firms who supply fittings for drug stores are doing quite a business these days, and have not a word to say about hard times.

William R. Warner has returned from Europe in splendid health after a two-months' visit. He came back on the Columbia from Southampton.

O. E. Wherrett, of the Kansas City Proprietary Medicine Depot, is in town. Mr. Wherrett is well-known in the West and has many friends in this city.

T. H. Sherwood and T. W. Norris, of McKesson & Robbins, who went to Europe about the middle of April, are not expected home for some time yet.

George J. Seabury says he feels first class as a result of his trip South. Fishing and riding afforded him much pleasure, and he lost fifteen pounds as well.

Happy is the druggist whose store is near a theatre. Lawrence & Mattson enjoy a large patronage by reason of their store's proximity to the Broadway theatre.

Herman W. Atwood says the contracts are out for the fitting up of the laboratories at the new College of Pharmacy building, and the work will probably be finished by July.

O. H. Beck of 17 Third avenue keeps himself well posted on the drug news of the day. He subscribes to about twice as many journals as the average druggist takes.

Otway Latham, manager of the Tilden Company's New York office, has recently been in Washington. To-day he is at the head office of the company at New Lebanon, N. Y.

The Dix Pharmacy Company's new store at the corner of 56th street and Sixth avenue is a very attractive one, and ought to draw the best patronage in the vicinity.

A. E. Dickinson, general manager of the Cudahy Pharmaceutical Company of South Omaha, Neb., paid a visit to the New York office of the company a little over a week ago.

Frank Smiley, the genial assistant of Charles Weisz at McKesson and Robbins', leaves for Ireland to-day. He will make a tour of that country before he returns in the Fall.

W. E. Dreyfuss and C. O. Hildebrandt, who are in business under the firm name of Dreyfuss & Hildebrandt, are soon to open another store, making three altogether, all in Hoboken.

F. Simon's store, which has been at the corner of Eighth and Bloomfield streets, Hoboken, will hereafter be located at the corner of Ninth and Washington streets, in the Sieburg Building.

The new building to be used for general purposes by the New York Quinine and Chemical Works, at Williamsburg, is now completed. The company has also put in some new machinery lately.

Dodge & Cleot, Jr., Baseball Club walloped the S. G. McCotter nine at Prospect Park last Saturday to the tune of 21 to 5. Harry Robertson is the efficient manager of the D. & O., Jr., Club.

Work is progressing rapidly at the new Hudnut store. The fountain to be put in is a 24-foot tile and mirror top, furnished by Howell & Sangston, New York agents for the Low Art Tile Company.

H. S. Livingston of W. H. Schelleffell & Co., who has been ill for a few weeks, is out of town recuperating. He will have about two weeks of rest, and it is hoped will return feeling better than ever before.

Two of Sharp & Dohme's salesmen are in town—John F. Sprague, the general representative in the South, and John L. Prior, whose special field is North and South Carolina. They will be here for several days.

Henry Kreuder, one of the roll of honor men of the class of '94, C. P. N. Y., has gone to Germany to visit his parents and to take an extended trip. Upon his return in the Fall Mr. Kreuder intends to take up the study of medicine.

S. Wexler, who has a drug store at 231 East Fifth street, is thinking of enlarging his place of business. The store was started only three months ago, so this compulsory increase of floor space speaks well for the young man's business.

Albert Fries of the Springer Torsion Balance Company is taking an extended Western trip for the benefit of his health. He has not been well lately, and when he returns to his desk at 92 Reade street his friends hope he will be in perfect health.

F. K. James, class of '89, C. P. N. Y., and proprietor of the drug store at 700 Eighth avenue, will sail for Germany on May 30. He intends to stay abroad some weeks for the benefit of his health. During his absence Mr. Barry will be in charge of the store.

Serina Plummer of Harlem and Simon Aller of Essex street, druggists, were recently fined \$50 each for keeping a pharmacy without a license. They have sued the city for the amount of their fines, contending that the law under which they were convicted has been repealed.

William Schmidt, formerly of A. Kiefer & Co., Indianapolis, still retains an interest in the drug trade, although for the present he has retired from the business. This was shown by the fact that he was in town last week representing the O. K. & I. Drug Exchange on some matters of importance.

Bendiner & Schlesinger's store at the corner of East 10th street and Third avenue commands an excellent prescription patronage. Mr. Bendiner has been at that corner for about twenty-five years. Among the assistants there are Augustus C. Dohrman, class of '91; Rudolph Brodli, class of '93, and Jessie I. Bailey, class of '95, all C. P. N. Y.

The E. M. Johnson Co.'s office is now in a settled condition, and Dr. Parmelee looks happy again. He has a pleasant position near a window, where he can look across Platt street into the Johnson & Johnson office without turning his chair half around. He says news is dull, but the company is selling its goods briskly, which, by the way, is not news.

Elijah J. Molloy, the United States and Canada agent for the Rosbacher Franz Josef Mineral Water Co., is expected to sail from Queestown for New York in a few days. He has been in Europe nearly two months and has visited the Franz Josef Springs at Buda Pesth and has also "done" the Antwerp Exposition. Mr. Molloy was formerly with McKesson & Robbins.

A meeting of the members of the Society of Chemical Industry who reside in New York city and its vicinity was held at the old College of Pharmacy Building, on 23d street, on the evening of May 13. Besides the signing of the petition to the home society there was a discussion of the matter of forming a local section. The petition will probably be forwarded to London on Wednesday.

Charles Stern, senior partner of Charles Stern & Son, the wine and brandy house at 16 and 18 Vesey street, is here from Los Angeles, Cal. He makes his home there. Mr. Stern says that reports from all over California show that the crop of grapes this year will be very much smaller, with an appreciable effect on prices of wines. He advises druggists of a speculative turn of mind to lay in their stock now.

Dr. John J. Gannon, who was for seven years connected with the pharmacy department of Bellevue Hospital, died at that institution on Tuesday last from diabetes. He was 42 years old and leaves a widow. Dr. Gannon was graduated from the Bellevue Medical School and from the College of Pharmacy. For a time he practiced in Mount Vernon, and then entered the hospital service in this city. His funeral took place on Thursday.

Lucien M. Royce, who has been connected with the wholesale drug trade for the for the last thirty years, has retired, and will hereafter devote his attention to his retail store, at the corner of Seventh street and Seventh avenue, Brooklyn. Dudley T. Larimore, class of '85, C. P. N. Y., who has been associated with Mr. Royce has accepted the position as manager of the Haas Pharmacies at Fourth avenue and 22nd street, and at Fifth avenue and 39th street, this city.

An afternoon newspaper devotes a couple of columns a day to letters from silly boys and girls about love, etc. Almost every day there is a letter from "a drug clerk" or in reply to one from a drug clerk. They are supremely nauseating. The burden of the song is that drug clerks are either too homely, too "stuck up," too closely confined to business or too delicate to be the recipients of "attentions" from the girls of the period. "Well," as Joe Howard would say, "if that is so, let it go at that."

The fountain the Charles E. Hires Company had at the World's Fair will soon be in working order at the office of the company, 116 William street, this city. It is a very large apparatus and will be remembered by those who visited the White City and drank root beer drawn from it. Manager D. Kelsay Whittaker of the New York office says that Mr. Hires was in town a few days ago and reported business as excellent, the company being able to keep up with orders only by hard work.

H. A. Smith's drug store at the corner of East Fourth street and Third avenue is said to be the only all-night pharmacy between City Hall and 34th street. Other "all-night" stores have been started up that way on the east side, but they did not last. Druggist Smith employs a physician in his store, and the residents of that section find this feature very convenient. Mr. Smith is putting in a new

Tufts fountain. It is considerably larger than the apparatus previously used, and will be an ornament to the store.

The news of the death of Willard N. Smith, a valued representative of McKesson & Robbins, was received by the trade with expressions of regret. The firm issued a card in which a fitting tribute to the memory of Mr. Smith was paid in these words: "He was honest, conscientious and earnest, and impressed all with whom he came in contact with these characteristics." Mr. Smith was employed by the firm in 1890, and made friends wherever he went. His territory will be covered by H. W. Bradley.

W. L. Schlager, a progressive druggist of Olyphant, Pa., has started a new store in that town. He procured his fountain from Howell & Sangston, New York agents for the Low Art Tile Company. The same firm has sold fountains to Ewen McIntyre, corner of Sixth avenue and 56th street; Carl F. Wöhllich, 25 Clinton avenue, West Hoboken; W. R. Cobb of Paterson, who has built a new store and fitted it up in first-class style, and to the Live Drug Store, W. B. Montgomery manager, 479 Third avenue. Mr. Sangston attended the meeting of the New Jersey Pharmaceutical Association this week.

F. W. Fink of Lehn & Fink will lead an excursion of friends to Elka Park in the Catskills on Memorial Day. Mr. Fink was one of the promoters of the Elka Park Association, and has been the treasurer of the organization since its inception. This private club comprises gentlemen in the drug and allied trades. About four years ago they bought 2,000 acres of land in the Catskills, and now there are fourteen cottages and a clubhouse there. The roads at Elka Park are nicely laid out, and all improvements necessary for the health and comfort of the residents have been made. The families of the club members spend their Summers there and welcome the advent of the heated term.

Albert Plaut of Lehn & Fink is back from a five days' visit to the Adirondacks, where he and a friend had a jolly good time. At the hotel where they stopped there were no other guests, and so they had the run of the house. Mr. Plaut had great success on his fishing trips, his largest catch being a pickerel or muskallonge weighing ten and a half pounds. This big fellow was brought to this city, and, after being prepared to the Queen's taste, was served to a party of nine drug trade men, all of whom declared that it was a dish fit for a king. Another gentleman who has been enjoying the fine air and good sport afforded up in the Adirondacks is John McKesson, who spent a week there, and found what he went for. It is needless to say that he went for trout, and caught them.

His friends in this city will be pleased to hear that Edward O. Kuntz of Cuero, Tex., has graduated from the St. Louis College of Pharmacy with high honors. He carried off the second prize, a silver medal, for general excellence, his percentage lacking a sixth of being 98. He also took the second prize for superiority in laboratory work. Mr. Kuntz returns South with L. D. Heaton of the firm of

Heaton Bros., Cuero. He has been in their employ for several years and will rejoin them. L. D. Heaton has been in the North for some time in search of health, and goes home feeling perfectly well. Another Cuero resident, who has been in this city attending the Post-Graduate Medical College, is Dr. J. Allen Kyle. He expects to return home soon after the session closes.

At the recent meeting of the Committee of Arrangements of the N. W. D. A., held at the rooms of the drug section of the Board of Trade, it was decided to hold the annual meeting the first week in October. The headquarters will be at Delmonico's. All conveniences for general meeting and committee rooms are provided there, and the banquet will take place there. There are numerous details in connection with the convention that are at present in the hands of a sub-committee. The plan of entertainment is already well outlined, but, being not yet fully completed, the committee does not wish the programme announced just at present. The N. W. D. A. men can depend upon it, however, that all is being done that can be to make this meeting a grand success. Assurances of a very large attendance have already been received.

A. B. Baltzly, one of Harlem's most enterprising druggists, is remodeling his store at the corner of Seventh avenue and 134th street. For two or three weeks the refurnishing has been going on under the direction of F. A. Greenough, of 42nd street, and in another week it is expected that Mr. Baltzly will be able to boast of having one of the prettiest stores on the avenue. Mahogany and plate glass give a rich and tasty appearance, and no expense has been spared to make this popular store attractive. The prescription department has been entirely separated from the main store, and its particular room has been fitted with all the up-to-date conveniences. The sub-station of the post-office, which was established at Mr. Baltzly's store some time ago has proved to be a great convenience for the residents of that section of Harlem.

When the "Abbey" Pharmacy at the corner of Broadway and 35th street is completely fitted up for business, the store will be one of the most attractive of its kind on upper Broadway. Ashton M. Boney, the proprietor, is naturally chafing over the delay in refurnishing the premises, but nevertheless the store already gives one an idea of what it will be when all the fittings are in. A special effort is to be made in the electric lighting way, and Mr. Boney promises that the store will be the most brilliantly lighted in the city. Then there will be a gallery in the store, one corner being occupied by the office of the proprietor. One gets a very poor idea of the amount of room the "Abbey" has by simply looking at the little store on the corner. The well-lighted floor below the street is quite spacious, and there will be located the prescription department and the stock. A dumb waiter will provide a quick return to a call for medicine or stock. It will probably be a month before the store is in settled shape, the furnishings being promised on June 15.

BOSTON.

Boston, May 22.—The Massachusetts General Hospital has always kept an apothecary, but in the out-patients' hospital it has been the practice heretofore to furnish prescriptions to patients, who were directed to buy the medicine at any drug store. Some druggists have been in the habit of sending to the hospital blank prescriptions with the firm address in print at the top. Early in January these druggists were notified that they need not send any more prescription blanks, and it was subsequently learned that the hospital was arranging for an apothecary shop on the same general plan as that at the lying-in infirmary. On March 20 the Massachusetts General Hospital drug store was opened for business in the out-patients' building. The dispensary patients were notified that they might, if they chose, carry their prescriptions to the apothecary, and buying their medicines of him. Eighty-five prescriptions were put up and sold the first day. One West End druggist says that in consequence of the new system at the hospital he has been compelled to discharge one clerk. Another places his monthly loss in trade from the same cause at \$30. Says a third: "We cannot complain of fair competition, but, as I look at it, the hospital has an undue advantage over us when it enters the drug business. Four members of the Board of Trustees are appointed by the Governor of the Commonwealth; the hospital property is not taxed except on some property in Waverly, and in many ways the public has lightened the expenses of the institution. The rent of the hospital drug store is nothing, and yet we are now called upon to compete against it, with our taxes, rents, etc., to be regularly met." Another druggist says: "At first I thought the hospital drug store would not sell medicines to the general public without physicians' prescriptions, but I understand that it has been done in several instances." At the hospital it was learned that it was distinctly not the intention of the hospital authorities to supply any but patients of the out-patient department with medicines, and that if it were found other people were taking advantage of the hospital drug store to procure their medicines sufficient regulations would be put in force to prevent such an abuse. Said one of the managers: "It would be unjust to compete with the druggists by opening our shops to all comers. We open it only to the poor people who are in our-patient department. Our prescriptions are not written in cipher, and they may be filled in any drug store. I have not heard before that any outsiders had tried to get our medicines. If it is so, we will see to it that the practice does not continue."

The class of '94 of the Massachusetts College of Pharmacy dined at the Thorndike the other evening. There were twenty-one present, and Milton H. Plummer presided. Just before the dinner was served the members of the class were photographed. John Ferrin read the class history, which proved very interesting. The class had as guests the following

named former graduates of the college: Edward Varney, Howard Smith and Caleb Harriman. On the evening of May 23 the graduation exercises of the College of Pharmacy will take place in the Y. M. C. A. Hall. The class officers are: President, Milton Holmes Plummer; first vice-president, John Alex McIntosh; second vice-president, Miss Jennie Henretta Sumner; secretary, Adam Thomas McCogan; treasurer, Herbert Calvin Holmes. At the graduation exercises the salutarian will be William Story Briry; the historian, John Ferrin; prophet, D. Albert Roberts; valedictorian, James Chery Fausnaught. Besides those already mentioned the class consists of Lewis Forrester Baker, Alfred William Balch, Arthur Leslie Beal, Albert Henry Benhard, Joseph Bergin, Charles Henry Cahill, Frank Herbert Coffin, John Edward Crowdie, Joseph Ingalls Moulton, Irving Nute, John Allen Osgood, Harry Fowler Smith, Charles Albert Stover, Arthur Herbert Taylor.

An interesting and instructive exhibition of the work of the chemistry classes of the Girls' High and Normal schools was given the other morning in the chemical laboratory of the school building on West Newton street. On one table was a display of the results of experiments in organic chemistry, showing a potato, the starch made from it, specimens of dextrose and dextrose, the distillation of alcohol, the starch and gluten derived from flour, and the making of yeast. Ranged on long tables were more than a hundred loaves of bread, the completed product of all these investigations. On the first table were also the results of tests for dextrose, for starch, and for organic colors, and for tannic acid in tea and coffee, as well as for extracts and essences. On other tables were specimens of crystals, how colors may be bleached, the results of experiments in quantitative analysis, etching on glass, etc. Exhibits of the work of advanced students in quantitative analysis were shown, including the results of resolving milk, the reduction of silver and the taking of photographs.

The following resolutions relative to the death of Mr. Theodore Metcalf were adopted by the trustees of the Massachusetts College of Pharmacy:

"Whereas, in His divine wisdom, our Heavenly Father has called to his eternal rest our beloved friend, Mr. Theodore Metcalf; therefore,

"Resolved, That in the death of Mr. Metcalf the trustees of the Massachusetts College of Pharmacy and the college feel a personal bereavement,

"Resolved, That his kindness and consideration for all with whom he came in contact, his zeal in advancing the cause of honest and scientific pharmacy, a true gentleman of the old school, he won the affection, esteem, respect and love of all with whom he came in contact.

"Resolved, That in the death of Mr. Metcalf the college has lost one who by his wise counsel and personal efforts was always its true friend, particularly so during its early struggle to maintain an organization and to establish itself as a teaching college.

"Resolved, That we extend to his bereaved family our sincere sympathy in this their great affliction, and that a copy of these resolutions be forwarded them and also spread upon the records of the college."

In Somerville the Aldermen had an all night session when the question of licenses came up in the form of a petition requesting the granting of liquor licenses of the sixth class to twenty-four druggists.

The report of the committee on the matter recommended that the petitioners be given leave to withdraw. It was signed by Aldermen Stockbridge and Barron. The third member of the committee, Alderman Gilbert had withheld his signature. He stated that he was not favoring licenses for the benefit of druggists, and that he did not believe in fully licensing any druggist who might apply. "But," said he, "I do believe that licenses should be granted to reputable druggists, but to discriminate between the reputable and disreputable was something found impossible, for mere hearsay is not evidence enough to convict. Therefore I have withheld my signature, as I do not wish to be understood as being entirely against licensing druggists." Mr. Phillips said he hoped the report would not be accepted by the board. He would grant licenses to a sufficient extent to accommodate the people for use in medicine, chemistry and mechanical arts. After six of the members had had their say about seventeen times each, and had said the same thing about a dozen times, a vote on the acceptance of the report was demanded about 2.35 a. m. Aldermen Andrews, Stockbridge, Sparrow and Whitney voted in the affirmative and Aldermen Hamblin, Gilbert, Phillips and Wiley in the negative. Then an order to grant the twenty-four licenses was introduced by Mr. Gilbert, but it was lost by a vote of six to two.

The Waltham License Commissioners have granted druggists' licenses to J. A. Connelly, L. J. Hut-hinson and Arthur M. Field. In Cambridge A. R. Bayley and T. W. Davies have been similarly favored. Police Sergeant Batchelder, the liquor officer, claimed that S. H. Tabot had failed to account for 2,232 half pints of liquor during the year. He had dispensed, 215 gallons and made 1,290 sales. Mr. Tabot was given leave to withdraw. The Lynn Aldermen have refused licenses to the druggists who petitioned for them. A. C. Martin and Charles Freeman, Chelsea druggists, have been given "leave to withdraw" their petitions for liquor licenses. At a meeting of the Malden Aldermen the application of the druggists, twenty-two in all, for sixth-class liquor licenses were refused by a vote of six to one.

Victor J. Orlander, druggist, Worcester, has assigned.

E. Sullivan is about to open a drug store at Concord, N. H.

Dr. Parker has opened a new drug store at Farmington, N. H.

The Freeman-Rice Medicine Company, Gray, Me., manufacturers of patent medicines, is in insolvency.

Irving W. Lyman, a druggist in Revere, has just opened a variety store in that town. Tufts has put in a fountain for him.

Another hearing has taken place in the Insolvency Court in the case of Harry G. Travis, the Hanover street druggist. The case now goes over to June 29.

The Selectmen of Amesbury did not grant any druggists' licenses at their reg-

ular meeting and the opinion prevails that they do not intend to grant any.

R. J. Willis of Somerville has opened a new drug store on Melford street. It contains a fountain furnished by Tufts.

School Committeeman Marshall, who is a chemist, has lately been showing what sound ideas he has by pointing out the need of new textbooks on physiology.

Among the losers by a recent fire at Norway, Maine, was F. P. Stone, druggist, whose stock, valued at \$5,000, was partly destroyed. Insurance was \$4,000.

By a decision of the Supreme Court, just given, Walt & Bond are declared to be entitled to the exclusive right of the word "Blackstone" as a trade-mark for a cigar.

Burglars raided the drug store of ex-Selectman Henry Smith on High street, East Dedham, early one morning. Mr. Smith's loss is \$300. It is believed that the burglary was the work of local thieves.

There was a fire in Natick the other day in a cellar used as a storage room for Danie's & Twitchell's drug store. The fire was confined to the cellar by the sill walls, but the smoke and water damages were considerable.

The Selectmen of Whitman have decided to grant no licenses to druggists for the current year, following the same rule as for the past three years. Although there are four druggists within the limits of the town, only one made application for a license.

The bill providing that licenses of the sixth class shall be granted only to registered pharmacists having a certificate from the Board of Registration in Pharmacy has been passed by the Legislature to be engrossed.

The will of Theodore Metcalf was filed May 11. It contains no public bequests, but leaves all his estate to his widow and children, with a yearly annuity of \$500 to his sister, Julia Metcalf, during her natural life. The instrument was drawn July 1, 1886.

During the conflagration at Roxbury on the afternoon of May 15, J. J. Howe's drug store at Tremont and Burke streets was turned into a temporary hospital, two doctors being in attendance until late in the evening. A score or more firemen were treated there.

A young married woman of this city was taken suddenly ill on an electric car at Charlestown Neck the other morning. She was assisted into Draper's drug store, where she soon gave birth to a child. The young mother was taken to the Boston Lying-in Hospital.

The anti-cigarette craze has reached such a stage that leagues have been formed by schoolboys who have been persuaded to abandon smoking. It will be an interesting thing for druggists to see if the sales decrease at all as soon as the first spasm of virtue has passed.

The Salem druggists are on the lookout for two "spotters" said to have been sent to that city by a Boston society. One of the spies, it is said, is the man who caused so much trouble in Haverhill a short time ago. It is stated that the Haverhill Judge refused to consider his evidence as trustworthy.

W. P. Draper of Springfield, one of the most active apothecaries in the western part of the State, has been doing some clever advertising by means of what appear to be English walnuts. These, when opened, are found to contain a roll of paper calling attention to some of Mr. Draper's special goods, and also a tiny bottle of fine perfume.

One of the most peculiar incidents of the great fire last week, in which about a dozen acres of buildings were leveled by the flames, is the fact that the only thing left intact in the barren expanse is part of the high fence surrounding the baseball grounds upon which is the mammoth advertisement of the X-Zalla Medicine Company that "X-Zalla Cures Burns."

Among the druggists who have lately bought soda apparatus from J. W. Tufts may be mentioned Frank G. Yohn, Holyoke; W. A. Chapin, United States Hotel, Boston; Charles P. de Langie, Market street, Lynn; J. F. Barker, Gloucester, who has bought out the Price drug store; E. P. Leavitt, Plainfield, Vt.; C. H. Guppy Company, Portland, Me.; Davis & Robitilla, Newport, Vt.; Henry Jones, Wolfborough, N. H., and George E. Meacom, Peabody.

There is a floating story that one Worcester druggist played a pretty mean trick on a rival druggist lately. When the Commissioners were making their round of inspection, they had hardly entered the rival's store when in came half a dozen boys with a can. "Please fill this with beer," one of them said, handing the can to the proprietor. That was sufficient. These boys were hired by the neighbor to "rush the growler," so the story goes. The injured one has no license as yet, but he says he will get even.

As usual at this time of the years, crusades have begun in many of the towns against the granting of liquor licenses to druggists. In the Town Hall in Wakefield the other evening there was a gathering of three hundred men and women to remonstrate against the issue of such licenses. The druggists of the town have had liquor licenses for several years, and this year they petitioned for a renewal. The Selectmen received a petition bearing four hundred names protesting against giving them licenses, and it was decided to give a public hearing on the question. Lawyer Towle appeared for the druggists, and argued that their license should be renewed, as there was no evidence that they had violated the law during the past year. Then the Selectmen had a private meeting to consider the matter, and, by a vote of three to two, licenses were refused.

The town of Avon voted in favor of licenses in March, and the same meeting that thus voted also elected a no-license Board of Selectmen, who immediately stated that no license should be granted. Consequently no one applied for licenses with the exception of two pharmacists doing business in the town. After the necessary preliminary advertising, the Selectmen met and decided that they would not grant licenses of the sixth class to the applicants.

Mayor Batchelder of Everett instructed Chief of Police Emmerton to notify all druggists and apothecaries in the city that

on Sundays they would be obliged to confine themselves to the preparation of prescriptions and the sale of medicines alone, and that the sale of cigars, candy, etc., would be strictly forbidden on the Sabbath day. This new order of the reform executive created considerable excitement, but persons affected by the order will not contest it, as they realize the fact that the courts have sustained him in his previous efforts in the line of placing the city at the head of the morality list. It is safe to say that Everett was the quietest city in the Commonwealth when Sunday came. The fact is that on the receipt of the Mayor's notice the apothecaries, nine in all, decided that if they could only be allowed to sell medicines it would not pay them to keep open, and decided to close their stores at 12 o'clock and keep them closed until Monday morning as long as the Mayor insisted on his order. At the store of Charles R. Garrett, corner of Broadway and Railroad street, a large sign decorated the main entrance, bearing a picture of a smoking cigar with the word "No" in the centre, and a mug of foaming soda, with "No" in the centre of the mug, and a notice that the store would not be open on Sunday. It is also understood that the Mayor means business, and will enforce the law, and the Druggists are equally determined not to open Sundays unless they can do business as they always have.

That business is brisk with the Low Art Tile Co. is shown by the fact that they have within the last few weeks supplied soda fountains for use in new drug stores as follows: J. H. Collins & Co., Lowell; J. J. Carroll & Co., Peabody; Whipple & Mansfield, Lafayette street, Salem (their third store); C. H. Martin & Co., Antrim, N. H.; G. R. Hinckley, Brockton (store formerly occupied by M. B. Crowell & Co.); L. M. Briggs, Weston; A. Barth, Providence (his second store); M. F. Sullivan, Fall River; J. E. Quimby, East Milton; M. O'Donnell, Inman square, Cambridge; and B. A. Turner, New Haven, Conn. Besides all this they have sold fountains to the following named druggists who are renovating their stores, some of them in a most elaborate manner: Arthur Tessier, Harrison avenue (who goes into a new building across the street); W. R. Proctor, Sandwich; J. C. Oxley & Co., Reading; F. E. Lovell, Newport, N. H.; A. P. Parkhurst, Gloucester; W. F. Warren, Cambridgeport; M. C. Healey & Co., New Bedford; Charles Coleman, Cambridge street, corner Temple street, Boston; F. C. Wright, Brighton; A. M. Dollittle & Co., Marlborough, N. H.; W. H. H. Andrews, Bridgewater; H. F. Hunt, Tremont street, Boston; Chas. Clark & Son, one of the oldest establishments in Lawrence; L. P. Knox, Mattapan; J. T. Lynch, Woburn; Aaron Pratt, Brookline; John Fessant, Holyoke; E. J. Fitzgibbon, Worcester; A. R. Marwick, Jr., Hartford, Conn.; G. H. Merrill & Co., J. A. Reeves and F. H. Hart, all of Providence; F. H. Lamson, New Britain, Conn.; H. E. Bond, Brattleboro, Vt.; W. H. H. Fisher, Rutland, Vt.; V. A. Grant, Pittsfield, N. H.; Clark & Nutter, Somersworth, N. H.; and M. D. Fisher, Washington street, corner Massachusetts avenue, Boston.

PHILADELPHIA.

Philadelphia, May 22.—There is not much of an improvement in the drug trade in this city, and the little buying is only in small quantities. The floods of the past few days have made havoc with the business, as the orders that generally come in during the first of the week are missing. The storm has flooded a number of towns, and as the railroad travel is cut off, the mail service is affected in like manner. There is, however, a general air of depression in the drug trade, and there is no relief expected until there is something definite done at Washington.

The decision of the Senate to let opium remain as it is, on the free list, has caused the market for that article to be somewhat depressed, especially among those who have laid in a large supply in the hope of there being a duty placed upon it.

Druggist Saurer of Lehigh avenue and Edgemont street, is having himself talked about in the neighborhood in which he lives, it all growing out of a flag-pulling down escapade. Besides the druggist, his former clerk is also a party to the gossip. The trouble began on St. Patrick's Day, when the druggist's clerk is alleged to have pulled down an Irish flag that waved from the residence of a son of Erin in the neighborhood. The boy, however, denied the act, but the owner of the flag and his friends insisted that they would boycott the druggist unless the clerk was discharged. Rather than lose some good customers, the druggist gave the boy his walking papers. Since his discharge the clerk is said to have joined the Junior Order of American Mechanics, and the latter have ordered a boycott on the druggist. Mr. Saurer said that he had heard of this action, but it made no difference to him as he had discharged the boy for purely business reasons, and sentiment of religion did not influence him.

The last of the series of pharmaceutical meetings at the College of Pharmacy was held on Tuesday. Prof. Henry Trimble has been chairman of the committee who have looked after the programmes, and has aroused much enthusiasm by the character of the intellectual menu presented month by month. At the May meeting Prof. E. S. Bastin read an admirable paper on "Economic Botany." Joseph W. England's subject was "Notes on Silver and Its Salts." F. W. Haussman read about "The Presence of Lead in Tartrates," and Prof. Trimble gave valuable information about "Four Oak Barks from India."

Franklin Whittall, 24 years old, son of James Whittall, of the firm of Whittall, Tatum & Co., was drowned in Boston harbor on May 15, while on a pleasure jaunt in a small boat, with three companions, the whole party being students at Harvard University. Young Whittall was taking a post-graduate course, having completed his four years' course in 1893. The first news of the drowning was sent to Boston by a man who found the empty boat drifting around in the upper harbor. Letters in coats which were cast up on an island, gave a clue as to the men who might have been lost, and an investigation led to the discovery of the bodies.

Harry C. Watt, owner of two fine drug stores near the public buildings, is now established in a third enterprise. He distanced all competitors in securing the pharmacy for the New Pennsylvania Railroad Terminal station at Broad and Market streets. The spot is the busiest in the city. The store is fitted up in solid mahogany and plate glass. The soda fountain is made of onyx, and its counters are decorated with unique carvings. Stock bottles are stopped with cut-glass stoppers. Forty-one electric incandescents make a brilliant illumination at night. C. T. Pickett, a graduate of the Philadelphia College of Pharmacy, class of '88, who has been manager of one of Mr. Watt's stores, is in charge of the new place.

William P. Bender, druggist, at the northwest corner of 18th and Morris streets, has brought a suit in the Common Pleas Court in this city to recover \$25,000 from Dr. Lambert H. Edgar for alienating the affections of his wife. Divorce proceedings are to be instituted later. The threats of the injured husband and his intention to bring suit reached the defendant's ears, and he departed. Since then the Sheriff's officers have been searching for him.

The Board of Trustees of the University of Pennsylvania have elected C. C. Harrison as acting provost, to succeed Dr. William Pepper. Mr. Harrison is a graduate of the university, and was the honoree of his class, and was awarded the Henry Reed prize. Recently, with his two brothers, Mr. Harrison endowed the John Harrison Laboratory of Chemistry in honor of their grandfather.

William H. Lacey, who operates the fashionable drug store on the corner of 19th and Green streets, has had a new soda water fountain placed in his store. It was made by Lippincott & Co., and was designed especially for Mr. Lacey. It has twenty-four syrup holders, ten draughts, and is constructed of Italian and Belgian marble, and white onyx. The top is polished mahogany.

John Fergesson, wife, daughter and niece will shortly sail for Europe. Mr. Fergesson is one of the active members of the Philadelphia Drug Exchange.

Blecker & Hadley have opened a drug store at Mill and Wakefield streets, Germantown. They were formerly employed as clerks at Wallace's drug store, Third and South streets.

Brooks & Elfreth will soon open a store at Fourth and Queen streets. Mr. Elfreth now conducts a drug business at Second and South streets.

George H. Somers, for many years a representative of Parke, Davis & Co., died at his residence on North Broad street, on May 6, after a lingering illness.

J. S. Carroll, formerly a salesman with Tufts, of Boston, has recently commenced the manufacture of soda water apparatus at 323 Locust street, this city.

E. H. Fahey, 13th and Race streets, has purchased the drug store at 10th and Green streets, formerly conducted by Mr. Fredericks.

A handsome pharmacy is the one being refitted by F. W. Stedem, at Fairmount avenue and Broad street. This is an old stand and is now undergoing many improvements.

Druggists are complaining about the scarcity of ice and its consequent high price. These conditions cut into profits of soda water, and the practice of chopping or shaving ice into glasses is not as prevalent as was the case last Summer.

The recent floods on the Schuylkill River have invaded a number of plants of manufacturing chemists. Harrison's lead refinery suffered in this way.

Howard B. French is chairman of the Citizens' Committee, which is endeavoring to have Philadelphia's new Mint located on the most favorable site, in spite of the opposition of speculators. He has been tireless in his efforts, and is obliged to make frequent trips to Washington to confer with the Secretary of the Treasury.

John Kirk, Ph. G., formerly associated with E. K. Burns, has just opened a new and handsome drug store at the northwest corner of Seventh street and Concord avenue, Chester, Delaware Co., Pa.

On April 4 a banquet was given to Dr. J. T. M. Cardeza in Beale Hall, Chester, Pa., by the physicians, druggists and other professional men of that place. Dr. Cardeza is well known in Delaware County, as he has been in active practice of medicine for fifty years.

George W. Smythe, the well-known sporting representative of John M. Maris & Co., was in this city a few days ago looking the picture of health. He has lost considerable weight since he first began to train, and he has plenty of bakers in this city on his fight with the cultured gentleman from Boston.

W. O. Lewis, a commercial traveler for a Philadelphia wholesale paint house, attempted suicide at the Westminster Hotel, Scranton, Pa., on April 9. Physicians succeeded in preventing death.

The city authorities are determined to do all that they can to prevent cholera getting a foothold here. A few days ago an order insisting on sanitary inspections by the police was read to the lieutenants of police by Supt. Linden.

Pennsylvania Pharmacy Board held an examination at Harrisburg April 28, 1894. Two hundred and seventy-two candidates appeared for examination, 165 applying for registered pharmacists' certificates, and 107 for qualified assistants' certificates. One hundred and nine of the former and eighty-five of the latter class were successful. The next examination will be held at Williamsport in July. Applicants should apply to the secretary of the board, Charles T. George, Harrisburg, Pa., after the middle of June, for the necessary blank form of application, and the exact time and place of the examination, stating for which certificate they wish to be examined.

Texas Pharmaceutical Association held a three days' session in the Board of Trade Hall, Austin, May 8, 9 and 10. H. L. Carleton, Austin, was elected president for the ensuing year; vice-presidents, G. L. McKinstry, Sherman; George Schmitt, San Antonio, and W. F. Robertson, Gonzales. G. W. Heyer, Houston, and W. F. Shook, Dallas, were re-elected secretary and treasurer, respectively. W. B. Morrison, Waco, was elected trustee to fill the unexpired term of H. L. Carleton, elected president. Galveston was selected for the next place of meeting, with Dr. John Kennedy local secretary.

DETROIT.

DETROIT, May 22.—There are no very startling developments to report among the drug trade of the pharmaceutical centre during the past fortnight.

The announcement in the daily papers that the son of Mr. H. C. Parke, who disappeared so mysteriously from New York on April 18, has been found to have welcome news to everybody here. "Jimmy," as he was called by his schoolmates, has a great many friends in this city, and the sympathy of the community is with Mr. Parke and his family.

There has been considerable talk of late among the retailers in regard to a certain prominent jobbing drug house in this city which has been pushing some of its specialties with the grocery trade. This local jobber has always laid particular stress upon his loyalty to the retail druggists, and the druggists are very much surprised to discover his action in pushing these specialties with the grocery trade. The jobbers here are situated very differently from what they are in many other localities. The territory tributary to Detroit is limited, and our jobbers are compelled to push their trade into every possible channel in order to keep their volume of sales. It is a question, however, if it is possible for jobbers to maintain the support and confidence of the druggists if they go so far as to push 10-cent specialties with the retail grocers that they may offer them in competition with the local druggists.

F. F. Ingram has taken a prominent part in the proceedings of the Associated Manufacturing Pharmacists of this State in reference to the tariff legislation, and as secretary of these meetings has presented several briefs, arguments and petitions to Congress relative to the drug, chemical and other sections affecting the drug interests. His comments are of interest to the drug trade at the present time. Mr. Ingram says that with the exception of the internal revenue feature of the amended tariff bill now being disposed of by the Senate, the bill is quite satisfactory to the trade in general. "Such changes as have been made in the duty on raw material have been reductions, and will be to the advantage of the home manufacturer, while the protective feature of the present law, which places a high tariff on foreign manufactured goods, has been generally maintained. Should the internal revenue tax proposed become a law it would prove very harmful to all—the retailer, wholesaler and manufacturer. It proposes to increase the tax on proof spirits 20 cents per gallon, or about 33 cents on alcohol. The drug trade's desire is to prevent the increase. While believing that alcohol used in the arts and manufactures should not be taxed at all, we cannot hope at this time to secure the great boon of free alcohol. We are endeavoring to prevent an increase of the present tax, and we believe our efforts in this movement should have the hearty indorsement and co-operation of the retail trade, as our interests are identical, neither being in a position to raise the price of his products, although their cost is largely increased."

Mr. Doty, secretary of the Detroit Pharmaceutical Society, states that at

the annual meeting of the society, which occurs June 6, the following officers will be elected: President, vice-president and secretary-treasurer, and that a full attendance is consequently desired. The present active membership of the society is seventy-five. Mr. Doty says: "I believe every pharmacist in this city should become a member of this society. There are questions constantly arising which are of great interest to every pharmacist, and of especial interest to those engaged in the retail trade, and which, being of interest to all, should have the careful consideration of all. Take, for instance, the cut-rate problem, which was for so long under discussion, the present plan was not decided upon without careful consideration, and although it may not be the best plan, it seemed to be the only one. Had every druggist in the city attended the meetings of the society, some better plan might have been suggested, although it does not seem, under the circumstances, any other decision could have been arrived at. The association is very sanguine of the success of their plan, and feel that the cutters will soon begin to think life is a burden, if they are not already of that opinion."

J. L. Schlrmer of Saginaw was in the city a few days since.

The Seneca Mineral Water Co. has opened an office at the corner of Fort and Griswold streets.

Mr. Lance, the genial representative of William R. Warner & Co., was in this city a few days since.

Frederick Stearns has sailed for England, where he will spend the Summer in the Cathedral towns.

S. A. Pfannenschmidt, who for some time traveled in Michigan for a local house, is now back at E. C. Kinsel's.

The drug store of James Hodges at Utica was broken into April 22, the safe blown open, and all the money in it stolen.

Charles Wing, who has for several years been in the employ of the Detroit Pharmaceutical Company, has secured a position with the Trommer Malt Company as a traveling salesman.

C. P. Gowman, who for several years was in business at the corner of 23d and Baker streets, is now managing a store at Tampa, Fla.

H. M. Linabury of Pontiac has recently sold his store to Weed & Co., and has embarked in the manufacture of road wagons. Mr. Weed formerly clerked for Harshaw & Co.

The young lady operator for the Postal Telegraph Company in the store of L. W. Toles at Marquette took cyanide of potash by mistake. Prompt action saved the young lady's life.

H. D. Luce of Lansing was in the city a few days since. He has recently sold his store to A. O. Bauer & Co. Mr. Bauer was for several years in the retail business at Grand Rapids.

John Ward is now conducting the store corner 12th and Myrtle streets formerly owned by J. S. Boyle. Mr. Ward at one time owned a store on Michigan avenue, and was subsequently in business on the east side.

William McGregor was caught in an alley in this city with 100 pounds of opium in his buggy. As the drug was presumably smuggled, the examination is being conducted by United States Commissioner Graves.

The new physicians' supply house, known as the Hupp & Pierce Pharmaceutical Company, which filed articles of association some time since, has opened for business at 74 West Congress street, Detroit, now has three firms competing for the trade.

Ford & Co. of Wyandotte made their first shipment of soda ash on May 13. This firm has been experimenting for the past two years with their raw material, and they now claim that their process is a success, and that their product is the best in the market.

The Pure Food Exposition, which was in progress in the Auditorium for two weeks, is closed. While the exposition itself was a treat to those who attended it and a marvel of neatness and taste in the arrangements of the different displays, the financial results were far from encouraging to the management.

S. F. Frizelle has not yet fully recovered from his long and serious illness. His store is being managed in his absence by Mr. C. C. Curtis. Mr. Curtis is an experienced druggist, having been associated with drug interests, both wholesale and retail for about forty years.

Mr. Courtright, who conducted the Clover Leaf Drug Store at 297 First street, has removed his stock to the new block, 1526 Woodward avenue, corner of the Boulevard. Mr. Courtright appears to have exercised very good judgment in changing his location, as the drug business seems to be somewhat overdone in his old locality.

Arthur J. Wilkinson of D'Avignon's drug store, across the river, in Windsor, Ont., heads the list of students who have passed their final examination at the Ontario College of Pharmacy, Toronto. He becomes the holder of two gold medals, one for passing with the highest percentage in all subjects, and one for passing the best examination in materia medica.

Nelson, Baker & Co. report the completion of the addition to their plant, to be occupied by their pill manufacturing department. They will now be in a better position to serve their trade in this line.

The salvage from Farrand, Williams & Clark's fire was sold at public auction May 24 by the Western Salvage Wrecking Agency of Chicago. The salvage included 1,600 cases of patent medicines, 50 barrels old whiskeys, 300 cases mineral water, 10,000 chamols skins and a large quantity of druggists' sundries.

The homeopaths in State convention at Battle Creek elected the following officers: President, Oscar Le Seure, Detroit; First Vice-President, Prof. D. A. MacLachlan, Ann Arbor; Second Vice-President, N. B. Sherman, Kalamazoo; General Secretary, R. S. Copeland, Bay City; Corresponding Secretary, W. M. Bailey, Detroit; Treasurer, C. S. Mack, Ann Arbor; Neurologist, J. S. Ayres, Kalamazoo. W. M. Bailey was elected a member of the Board of Control, vice Porter, whose term expired. The next meeting of the organization will be held in Detroit.

CHICAGO.

Chicago, May 22.—Inquiries among the wholesale drug houses reveal the fact that out of town trade is very good at present, while that with local druggists is very quiet. Mr. Peters, of the Fuller & Fuller Co., says that their out of town business compares favorably with last year. This cannot be said of the local trade, of course, owing to the abnormal business done last year on account of the World's Fair, but, according to Mr. Peters, their present sales to Chicago show a handsome increase over those for the same period of 1892. Interviews with retail druggists in different sections of the city reveal a rather mixed condition of affairs. Some declare that business is picking up, while others say it is no better than a month ago. The opening of the soda water season and the increased sale of cigars help business out to some extent, but people are not spending the money for luxuries of this kind that they formerly have. The changeable Spring weather has stimulated prescription business to some extent, although this, for some reason, is more noticeable in certain districts than in others.

The next meeting of the State Board of Pharmacy will occur in this city on the 12th of next month. Mr. Schmidt, the prescription pharmacist on the tenth floor of the Schiller Building, is a member of this board. He says the board is strictly enforcing the State Pharmacy law, and is prosecuting a number of cases for violation of the provisions requiring that stores shall at no time be left in charge of those who are not fully registered. Mr. Schmidt moved from the eleventh to the tenth floor of the Schiller Building on May 21.

It is now practically assured that nothing will be done with the Hayes system of numbering patent medicines for the prevention and discovery of cutting, in Chicago. The Retail Druggists' Association, it will be remembered, went into quite an exhaustive investigation of the matter and then put it into the hands of a committee for final consideration and report. The committee made their report about three weeks ago, to the effect that in their opinion it was not feasible, as far at least as Chicago was concerned, since when nothing has been done in the matter, and no meeting of the association has been held. The decision reflects no discredit on Mr. Hayes, as many, including members of the committees which have handled the matter from time to time, were heartily in favor of it, but the main difficulty encountered, that of enlisting the support and co-operation of manufacturers, was found insurmountable. The Chicago Retail Druggists' Association met with a good measure of success in restricting the cutting evil to department stores until the advent of the Economic Drug Company; since when, as one of the officers of the association expressed it, "its efforts have proved abortive." It does not hold regular state meetings at present, and its members are only called together when some matter of common interest like rate cutting seems to imperatively demand co-operative action which promises success. It no longer

has any very direct connection with the Interstate League.

The Senegambian concealed among the bottles and packages on the shelves of the drug departments of the department stores was recently revealed when the manager of one of the big State street establishments said to a local drug man: "We lost heavily in our drug department last year, selling, as we did, many articles below the actual cost to us, and everything else at the lowest margin of profit. Take it all in all, however, I consider that it furnished us with the best and cheapest advertising medium we ever had. We know a good thing when we see it, and shall continue along the same line."

Of the 156 matriculants in the junior class of the Chicago College of Pharmacy, 1893-94, 110 passed the final examinations successfully. The trustees' prize, an entire ticket for the senior course, for the best general average, was awarded to Edmund N. Guthrie of Chicago. The following juniors received honorable mention: R. W. Hull, C. A. Gumare, Edward Ciris, H. Sandkoetter, J. L. Beardsley, O. D. Schreiner, W. A. Zacharski, D. Flavin, D. L. Schrum, Ed Singer, G. A. Hops, Adolph Merritt, George L. Peck, John Nicholek, John H. Graves, R. C. Drew.

The Illinois Drug Clerks' Association, which was recently formed, has taken steps toward incorporating, and papers have been forwarded to Springfield. They will shortly issue a souvenir, which will contain a statement of the objects and aims of the association. Efforts to establish branches outside of Chicago will be taken as soon as the association is fully incorporated. Fred Rudrick, the president, who is with August Jacobson, 479 Ogden avenue, says that one of the principal objects is to establish a downtown office in Chicago, where the names of members, and especially those who are out of employment, will be enrolled, and where druggists can obtain competent clerks at any time. The other officers are: E. P. Bond, first vice-president; W. A. Stuckleck, second vice-president; J. Platt, third vice-president; F. A. Lemke, 95 Canalport avenue, secretary; W. T. Winters, treasurer.

Mrs. A. E. Ebert is now able to be out again.

Chicago suffered severely from the terrific storm of last week.

G. W. Shaw of South Chicago is recovering from recent illness.

C. L. Lindemann's new corner entrance makes his store very attractive.

William Mehl has returned from Baden, Ind., looking strong and hearty.

Benz & Hess of 37th and Wallace streets is succeeded by A. P. Hess.

Mr. Jerman of Lord, Owen & Co. is out of the city for a week on business.

C. D. Stone's, 1061 West Madison street, has recently become an all-night store.

J. G. Sponsel of Morrisson, Plummer & Co. will take a trip East this Summer.

Charles S. Ross, 1302 Madison street, will put in a new fountain, the make not decided.

V. H. Dumbeck, manager of Hurst's three stores, is away on a two weeks' vacation.

Mrs. William Bodemann and friends have returned from their California trip.

Morrison Bros. have opened a new store at the corner of 55th and Wright streets.

Arthur Pierce has just opened a new drug store, corner of 42d and Van Buren streets.

E. B. Macy and family of South Chicago have left on a several months' vacation East.

Ed George of the Davol Rubber Company is again in Chicago working the drug trade.

Axel Turquist, 242 Westworth avenue, will soon have an improved balance on the market.

The Colbert Chemical Co. has opened its new and attractive store in the downtown district.

Mr. Oughten of the Woodlawn Park Pharmacy has returned from his extended wedding trip South.

Oscar F. Isensee of Lord, Owen & Co. is soliciting trade in Englewood and the stock yards district.

E. C. Engels of 47th and Winter streets has purchased a large bill of drugs at a fire sale held in this city.

J. A. Johnston, 1049 West Madison, put in a new fountain, Hart Manufacturing Company make, on May 1.

H. B. Brown, 1249 West Madison street, is refitting his store, putting in new beveled glass show cases, etc.

M. E. Franklin, a prominent druggist of Deadwood, S. D., is in the city with his family, combining business with pleasure.

H. Giddings bought the drug store of Julius Mayr, 1238 West Lake street, about eight weeks ago, and is now conducting it.

Harry T. Lester of Knothe & Co., 45th street, has returned to his post of duty after a long visit at Salem, Ill., his home.

John Plummer, treasurer of Morrisson, Plummer & Co., is being congratulated on the advent of a second son into his family.

A. K. Lowry has opened a drug store in the new large building corner 47th street and Wabash avenue. Fred Taylor will manage it.

Henry Reuter has moved his drug store from the corner of Halsted and Jackson streets to the corner of 40th and Madison streets.

George Clark has bought the drug store of Max Schilling, corner Milwaukee avenue and Paulina street, and took charge last week.

Knothe & Co., proprietors of the Fifty-ninth Avenue Pharmacy, have sold their interest in the business to Emil Thiele, one of the former partners.

Scott & Yungk are soon to start a drug store on the northwest corner of State and 47th streets. This will make the second store at this street junction.

James Thompson, 83 Clark street, has had his store improved by the painting of the front of the building and a thorough inside Spring housecleaning.

A. C. Weckler of the Alhambra Pharmacy is exerting himself in concocting some new soda beverages for the patrons of the theatre during the Summer.

Charles J. Miller, Western manager for Charles Graef & Co. of New York, United States agents for the Apollinaris Company of London, will move shortly from the Owens to the New York Life Building.

C. B. Springer, 154 West Lake street, corner of Albany avenue, has just put in a line of white lead and oils, the Chicago White Lead and Oil Company's goods.

Mr. Rodgers, formerly of Rodger & King, has returned to the city after a long absence West for his health. He is at present employed at Buck & Rayner's.

William Bell, State and 22d streets (the Golden Key Pharmacy), went down to Peru, Ill., last week and returned a benedict, the bride being formerly of Chicago.

C. A. Jerman, general salesman of Lord, Owen & Co., has been spending a month for the benefit of his health at the Indiana Mineral Springs. He will return this week.

W. B. Behrens is conducting the store of E. B. Macy during his absence East. Ed R. Newcombe of Morrissan, Plummer & Co. is not improving as swiftly as his friends would desire.

R. M. Barbour, who sold his drug store, corner Laplin and Van Buren streets, last March to Romanto Wells, is now manager of the J. P. Lee Drug Company's store, at 290 S. Halsted street.

M. A. Curtis, Parkside Pharmacy, has moved his store one block south, on Stony Island avenue, nearer the I. C. R. R. station. This puts him in the same block with the new Harvey's Pharmacy, just started.

A. D. Thorburn of 464 Indiana avenue, the valedictorian of the last graduating class of the Chicago College of Pharmacy, is now conducting the Jackson Park Pharmacy for O. F. Schmidt & Co. of Hyde Park.

The retail drug business of the late Hugo W. C. Martin is now being conducted by his widow, with Paul Wickert, who at one time clerked for Mr. Martin, as manager. The store has been moved from 335 to 376 State street.

John C. Wood now travels through central and eastern Indiana and western Ohio for Morrissan, Plummer & Co. Mr. Wood was formerly with an Indianapolis house, and has a wide acquaintance in the territory covered.

Smallpox still has a strong hold on the city, so much so that the Mayor has issued a proclamation of compulsory vaccination. The Council has appropriated a large sum of money to be used by the Board of Health officers.

F. P. Kennedy has just bought the drug store of C. E. Reiss, 39th and State. Mr. Reiss retires from the retail drug business to devote himself entirely to the manufacture of cherry phosphate, which he has been engaged in for some time.

James A. Davidson, druggists' sundries and stationery, has moved from 231 Randolph street to 215-10 Randolph street, where he occupies the entire second floor. The new quarters are nicely fitted up, and Mr. Davidson says business is brisk with him.

C. W. Greene, who purchased the Harrison Pharmacy, corner State and Harrison streets, about four months ago, is making a success of it. The daily sales have trebled under the new management, and many needed improvements have been made.

J. A. Renner has recently remodeled his drug store, at 1082 West Lake street, putting in a new front, etc. Otto Look, Mr. Renner's competent prescription clerk, is

making a six weeks' visit to Sheboygan, Wis., and B. H. Levy is filling his place while he is gone.

Stone & Co. have removed their drug stock to the southeast corner of 26th and Calumet streets, while Kurth & Dougherty have refitted the store vacated by the former gentlemen, placing in it a complete new stock furnished by Peter Van Schaack & Sons.

G. A. Gaebler of Gaebler & Co. has started on a several months' trip to Europe. He expects to take advantage of various hospital clinics to aid him in the study of medicine, which he has been pursuing in one of our medical colleges. Mr. Link is conducting the pharmacy in his absence.

Curtl & Co. are now located on the northeast corner of 63d street and Cottage Grove avenue. Frank McRae, a former partner of Mr. Curtl, conducts a pharmacy on the opposite side of the street, while Dunning & Co. will start a new store in the building formerly occupied by Curtl & Co.

H. J. M. Schroeter, 425 State street, has opened a prescription pharmacy on the ninth floor of the Champlain Building, corner of State and Madison streets. Mr. Schroeter conducts his new pharmacy personally, and W. W. Hall, a graduate of the Chicago College of Pharmacy, is in charge of the store at 45.

The baseball league of the drug trade is composed this year of men from Lord, Owen & Co., Fuller & Fuller Co., Truax, Green & Co. and Morrissan, Plummer & Co., Peter Van Schaack & Sons and Humiston, Keeling & Co. having withdrawn. The first game of the season occurs Saturday, June 2.

In Englewood, on 63d street, near Wentworth avenue, a large department store is being built, which is to have a complete drug department. There are many druggists now on this street cutting prices on patent medicines who will have this establishment to compete with.

J. Fischer opened a handsome drug store, corner of Kedzie avenue and West Ohio street, May 21. Mr. Fischer has had fourteen years' experience as a drug clerk in Chicago, and is well-known among the west side druggists. He bought his stock from Morrissan, Plummer & Co. The fixtures were made by the Quincy Show Case Co., and the fountain, a small one for a starter, by the Hart Mfg. Co.

Martin V. Creagan, 1435 West Madison street, is undoubtedly the youngest druggist in Chicago, having a store of his own in Chicago. He is but 21 years of age, has been working in drug stores since he was 10, and was registered at 15.

The Colbert Chemical Company has just opened a drug store on the northeast corner of Dearborn and Monroe streets. The company is composed of T. Fred Colbert, Harry Gundling and Joseph Maas. Mr. Colbert conducted a small store at 60 Dearborn street for two years prior to the starting of the new store.

Stone & Co. have removed from 51st street and State street to 49th and State streets, where they are doing business under the name of the Economy Drug Co., H. H. Weissenborn, manager. C. L. Stone is now located at the corner

of 25th and Calumet avenue, while Keath & Dougherty have opened a drug store in Shane & Co's old location at 51st and State streets.

Mr. Blockl of Gale & Blockl has been in California for the last month with his family, and will probably stay for several years, endeavoring to regain his health, which has suffered greatly from a paralytic stroke he received a year or so ago. Walter H. Gale has taken charge of the firm's Palmer House store, which Mr. Blockl formerly personally managed. Mr. Blockl retains his interest in the firm.

R. C. Parks & Co. have just opened a drug store, corner of Van Buren and Whipple streets. The firm is composed of R. C. Parks and Z. Winters, and purchased the stock of Emmons & Co., formerly of 519 Wabash avenue, but who discontinued business May 1. Mr. Parks was with the firm prior to that time, as was also E. R. Bond, who is now running a store somewhere in Southern Illinois. Mr. Parks is putting in a new Lippincott soda fountain.

Extensive improvements are being made to the "Higgins" Pharmacy, 1250 West Madison street. C. W. Sisson, the proprietor, bought Mr. Higgins out about a year ago. Since then he has greatly enlarged the business, and has been greatly cramped for room. He has rented a new store room on California avenue, just back of his present one, and is fitting it up with his surplus stock. The laboratory, greatly enlarged, will be between the two stores.

May 22.—There was a meeting of the Board of Trustees of the Chicago College of Pharmacy this afternoon. Only routine business was transacted. The Committee on School of Pharmacy was expected to report recommending a successor to the late Hugo W. C. Martin as director of the laboratory. No report was made, owing to the chairman of the committee having been engaged in jury duty and unable to give the matter the required attention. The matter will, therefore, not be decided until the next meeting, which takes place on the third Tuesday in June.

Wm. C. Amos, western manager for the Winkelman & Brown Drug Company, has resigned, to accept the position of assistant manager of the railway and agency departments of the Fidelity and Casualty Company of New York, with headquarters in the Rookery building. Mr. Amos came here four years ago and started the western department of the company, whose business he has so well conducted. His resignation takes effect on June 1, but his successor has not yet been appointed.

The Delaware Pharmaceutical Society met in Wilmington May 3.

The following officers were elected for the ensuing year: President, Benton Smith, Wilmington; vice-presidents, J. B. Butler, Newark; C. D. Sypher, Dover, and T. A. Shipley, Seaford; secretary, F. W. Fenn, Wilmington; treasurer, James M. Griffin, Wilmington; Executive Committee, William Poole, D. M. White, and T. B. Cartmell.

The society decided to offer two prizes, one for \$20 and another for \$10, for the best prepared essay read at the next annual meeting of the society, the subject to be selected by the president.

ST. LOUIS.

St. Louis, May 22.—The wholesalers find a fairly good trade, although not what might be anticipated at this season of the year. Prices, however, are without any break, despite the fact that everybody is anxious to get business. Collections are improving, and are a good deal easier than they were last month.

John S. Moffitt, president of the Moffitt-West Drug Company, died on Wednesday night, May 18, at his suburban home, Webster Groves, Mo. He was 33 years old, and had been ill for some months past with a complication of troubles, prominent among which was nervous prostration, that caused his death. April 1, he went to Eureka Springs, Mo., with the hope that he might be benefited, but the disease grew worse, and he returned home a couple of weeks ago. (A sketch of his life is given on another page—Ed.)

There is no uncertain sound in the expression of views of St. Louis manufacturers of drugs and chemicals on the tariff question, or the responsibility for the present depressed condition of our industries. In reply to a circular sent out by Senator Voorhees as to how the Wilson bill would affect manufacturers, the Mallinckrodt Chemical Works, National Ammonia Company, Meyer Brothers' Drug Company and Larkin & Scheffer have made replies. The Meyer Brothers' Drug Company sent in "that they would be compelled to reduce either the price on the product, or discontinue manufacturing if any reduction of duty is made on the goods that they manufacture." The Mallinckrodt Chemical Works sent "they manufactured over 300 different articles, but it would be impossible to say just what difference in cost of production a reduction of one third of the present duty would make. However, such a reduction would result in our discontinuing the manufacture of a large number of articles and becoming importers." Herz & Frerichs send in answer to the circular, "We are manufacturers of such coal-tar preparations, which are not colors and dyes, and which are not used in the manufacture of colors and dyes, but which we used in medicine and the arts. If these preparations go on the free list the extensive plants which have been erected by United States and other manufacturers are valueless." Larkin & Scheffer said: "To reduce the duty one third would probably cause us to stop the manufacture of many articles." The closing paragraph of the letter is a reply and says: "Monkeying with the tariff, silver question and general imbecility of representatives in Congress of both political parties is the cause of the present depression."

The Paint, Oil and Drug Club held its final meeting and banquet of the season at the Mercantile Club on Thursday night, May 12. There was an attendance of fifty-five. O. H. Greene presided as toastmaster. Quite an elaborate repast was partaken of, and there was great flow of oratory. President T. B. Dougherty made the opening address, and he was followed by Mr. Moses L. Wieder, who responded to the toast, "The Manufacturers." Mr. Gustave J. Meyer spoke on "The Jobber," W. E. Scheppe on "The Retailer," and Mr. W. B. Long on "The City Drummer."

Mr. Frank Wyman gave several recitations, and informal speeches were made by Mayor Cyrus P. Walbridge and others. A quartet and mandolin club rendered several pleasing selections during the evening. The special guests of the evening were Messrs. W. E. Scheppe, Frank Wyman and Col. Thomas Richeson.

On Saturday afternoon the Mallinckrodt Chemical Works filed a transcript in the United States Court of Appeals of an appeal from a verdict given against them by Judge Thayer some time ago in favor of the Government. On Feb. 18, 1893 the company imported from Bremen, Germany, 750 ounces of murate of cocaine. The United States Appraiser classed the importation as a chemical compound, and assessed the duty at 25 per centum ad valorem, and charged \$743.25 duty. The company protested, claiming the importation to be a medical preparation in the manufacture of which alcohol is used, and further that the duty should only amount to \$23.45. Judge Thayer decided in favor of the Government, hence the appeal.

J. P. Tierney, proprietor of the Laclede Pharmacy, has been ill for the past week or so.

Theodore Meyer of the Meyer Bros.' Drug Company is in the East on a business trip.

The Dr. J. H. McLean Medicine Company is building a \$5,000 warehouse at Collins and Biddle street.

The retirement of E. A. Leonard from the Antikamnia Chemical Company is announced.

The C. F. Simmons Medicine Company will have an election of a board of directors on May 27.

Oscar Ruge has recently opened a pharmacy at the southeast corner of 19th and Hemet streets.

The wife of A. Phillips, the druggist, was made an M. D. last week in the Missouri Medical College.

Hutchason & Williamson's stock of drugs at Higginsville, Mo., was pretty badly damaged by water on May 12.

D. A. Emerson, representing J. C. Ayer & Co., passed through here last week on his way to the Indian Territory.

The name of W. B. Addington has been mentioned for Congress on the Democratic ticket in the Twelfth Congressional District.

The case of the Merchants' National Bank against the Meyer Bros.' Drug Company has been continued by consent until June 8.

D. E. Hewitt of Winfield, Mo., was in the St. James Hotel on May 16. He took a physician back with him to take charge of his pharmacy.

The Stegner Drug Company was incorporated May 8 with \$5,000 capital stock, by Emil Stegner, Charles Diggs and James A. Maginn, the latter as trustee.

On Wednesday evening, May 18, Miss Edna Waibel, a daughter of L. F. Waibel, the druggist at 763 1/2 South Broadway, was married to Mr. Frank Brimmer.

The Haggins Drug Company of East St. Louis was awarded the contract to furnish prescriptions to the poor of St. Clair County, Ill., at 17 cents each.

W. B. Addington, pharmacist, has purchased considerable stock in the Monitor Publishing Company, which will shortly

begin the publication of a new morning paper.

There is a rumor current that propositions are pending for a consolidation of the interests of two large wholesale establishments, but close inquiries failed to substantiate the story.

On Tuesday, May 15, the drug store and fixtures of Dr. C. C. Roesch at Alton, an Illinois suburb, were seized by a constable under an execution in favor of C. Sotler, owner of the building.

The Richardson Drug Company's laboratory and stock in the Supplies Building, Eighth and Walnut streets, was damaged to the extent of \$3,000 May 18, by smoke and water; fully insured.

Last Wednesday F. Sohn, superintendent of Postoffice Sub-Station No. 11, sold his pharmacy, No. 1400 North Grand street, to his clerk, Emil Stegner, who was also appointed to succeed him as postmaster.

The Arkansas State Association of Pharmacists will meet at Hot Springs on June 5, 6 and 7. They will be entertained exclusively by the local druggists at Hot Springs, and a very elaborate programme has been prepared for the event.

There has been some discussion recently among the druggists on the subject of establishing a retailers' protective association to prevent the sale of drugs by dry goods and other establishments outside of the regular trade, but no organized action has yet been taken, and may not be. The trade claims that State laws would protect them if they were enforced.

Wednesday, May 16, the St. Louis College of Pharmacy appointed the following faculty for the ensuing year: James M. Good, professor of pharmacy; Otto A. Wall, professor of pharmacognosy; Gustavus Hinrichs, professor of chemistry; H. M. Whelpley, professor of microscopy; Francis Hemm, professor of practical pharmacy. The college is in a most flourishing condition, both as regards financial standing and the number of students.

Missouri Pharmaceutical Association holds its sixteenth annual meeting at Excelsior Springs June 12-15. An elaborate programme has been arranged. Prizes are offered for best papers and also for best exhibits. A new feature, introduced for the first time, is the one of "debates," the debaters to be selected by the association, one on each side, and given five minutes for arguments and two and one-half minutes for rebuttal remarks. Here are three of the questions: "Resolved, That clerkship is preferable to proprietorship;" affirmative, a proprietor; negative, a clerk. "Resolved, That women in pharmacy are a failure;" affirmative, Kansas City; negative, St. Louis. "Resolved, That colleges of pharmacy are injurious to the drug trade;" affirmative, a college professor; negative, any one the association may select. Reduced rates have been secured from the railroads.

The Indiana Pharmaceutical Association will hold its two days' annual session at Evansville June 13 and 14. An elaborate programme has been arranged for the entertainment of the members and visitors.

Houston, Texas, Pharmaceutical Association has elected J. L. Cunningham president, Ed A. Schaeffer vice-president, A. G. F. Streit secretary, and R. F. George treasurer for the ensuing year.

PITTSBURGH.

Pittsburgh, Pa., May 22. Pittsburgh's College of Pharmacy seems to be in a better condition this year than ever. Already plans are well under way for extensive improvements next season.

The fact that "Father Mollinger" did not have a secret formula for his remedies was brought to light through a recent squabble in the Allegheny County courts. Father Mollinger, now deceased, was the noted priest-physician of the Church of the Most Holy Name, on Troy Hill, whose supposed miraculous cures on St. Anthony's day attracted pilgrims to that shrine from nearly every State in the Union. Faith and the laying on of hands, with an accompanying penance in many cases, had a great deal to do with the cures. Medicine was prescribed. The prescriptions were of a peculiar sort, written in cipher and filled by Druggist Sawhill. After the death of the learned priest Mr. Sawhill continued to sell remedies made according to the priest's prescriptions, but his field of operations was invaded by Morris Einstein, also an Allegheny druggist. Each used the portrait of Father Mollinger as a trade mark, and thus the suit arose. Mr. Einstein filed a bill to restrain Sawhill from using the formula and trade mark, claiming the right through an assignment of the same from the private secretary of the dead priest. The evidence before a master was to the effect that there was nothing to show that the formulas were secret; that they were simple and known to many physicians. No proof of authority from the priest was shown, and the bill was dismissed. Thus vanishes the popular belief that the prescriptions were out of the ordinary line and of mysterious power.

Three milkmen of Pittsburgh were compelled to submit to a rigid quarantine a few days ago by the chief sanitary inspector of the Bureau of Health. In the home of one scarlet fever and diphtheria broke out. The inspector learned the fact, but feared he would be powerless, as the milkman lived just outside the city line. However, the next morning but one after the cases broke out the milkman was met at the city line by an officer with an order from the Bureau of Health and none of the dangerous milk was admitted. The driver maintained that there could be no danger of infection, but the health officers ran no chances. The other two milkmen lived in adjoining houses where the fever broke out. One of the quarantined men declared the regulation and its enforcement would drive him out of business. The instance led the health inspector to remark that people nowadays submit to more trying conditions than they would many years ago.

Ex-Burgess R. J. Hardy of Carnegie, Pa., who is well known in Pittsburgh, contributed for George A. Kelly & Co.'s Market Review, this city, an article on "Extent to which Pharmacists Should Devote Their Attention to Outside Interests." He has been in politics for years, and ought to know from stern experience what he is talking about. He says:

"Every man of every profession and trade owes a duty to the public as well as toward his family, his business and himself, and, although the pharmacist has not

as much spare time as most business men, it is his duty as a citizen to do all in his power to further the interests of the community in which he lives.

"But as far as the benefit to him as a pharmacist is concerned, it all amounts to simply nothing. It is true that our public-spirited pharmacist will have made many friends, perhaps, and brought himself more conspicuously before the public, but he will also have made enemies, for no man can occupy a public position and discharge his duties faithfully without making enemies, and one enemy will do more harm to his business than several friends will do good, for the enemy will go out of his way rather than come into his store, while the friends will not make any special effort to throw their trade his way if they can be as well served in a more convenient place. As far as being brought before the public is concerned, so judiciously expended in printer's ink will do more good than a year of faithful and useful public services. The public may appreciate his efforts and even feel grateful, but the gratitude will not take the substantial form of increased trade, nor will the fact that he is freely and voluntarily attending to public business be taken as an excuse for his occasional absence from his store. The pharmacist is in a different position from most business men. Every minute of his time may be profitably occupied about his business. When he is not actually engaged in the necessary work of store or laboratory he can be occupied in interesting chemical and pharmaceutical research, and time thus spent will be much more profitable to him in his calling than if devoted to gratuitous public service.

"In conclusion, the writer would recommend every pharmacist who has not been there, and who has the opportunity of serving the public by accepting an honorary office, to do so, if he can afford it, if only for a term of a year or two, for the general knowledge he will gain thereby. But let him recollect that such services, if faithfully discharged, will involve more or less self-sacrifice, and that his business, if not actually injured, will certainly not be benefited."

Letters of inquiry relative to the Sunday observance question have been received from other cities by Pittsburgh druggists. After months of hard work, about four years ago the "Law and Order" Society (so-called) accomplished a "reformation" and closed up ice cream parlors, fruit stands, cigar stores and soda fountains. A thirsty citizen or traveler could not buy even a glass of milk between 12 o'clock Saturday night and midnight Monday morning. Everything, at least downtown, was tight as a drum. The L. and O. fell into disrepute last year, over prosecution of news-dealers, and several of their detectives were arrested and imprisoned on criminal charges. The chief agent of the society was convicted of conspiracy, but sentence was suspended for a time on account of his severe illness. The expenses of such wholesale work on the part of the society amounted to more than the receipts, and in a fit of absent mindedness some members of the L. and O. Society signed notes to pay the deficit. They are now reaping the harvest

of their folly and endeavoring to solicit funds to reimburse themselves. A few fruit stands lately resumed business, but on May 12 Roger O'Mara, Superintendent of Police, ordered them all closed, but said drug stores might sell soda water as a partial recompense for keeping open to fill prescriptions.

Drs. J. Milton Duff, J. I. Thomas and W. H. Duly, a committee of Pittsburgh physicians representing the American Medical Association, has issued a circular showing the route to be followed by the Pittsburgh contingent in going to the national convention in San Francisco, which meets June 5. The local members will leave here May 28 at 6 p. m., going via Chicago, Council Bluffs, Omaha, Denver, Salt Lake City, Ogden and Sacramento.

Druggist Reed has established a new store at 320 Larimer avenue, East End. J. K. Jyle of Sharpburg has sold his pharmacy in that place to a Greensburg druggist.

George W. Kutscher and Miss Lulu B. Fawcett of Bradock were married recently in that place.

The Pittsburgh Paint and Drug Club held its monthly meeting on the evening of May 18 at the Seventh Avenue Hotel. C. F. Nevin of Allegheny is secretary of the club.

Messrs. Hackney & Weber have a new pharmacy in East Liberty, this city, corner of Sheridan street and Penn avenue. Mr. Weber was formerly head clerk for Markell Bros., and Hackney has had a pharmacy on Larimer avenue.

Manager Sichelstein of W. J. Gilmore & Co., wholesale druggists, is one of the most popular business men in Pittsburgh or Allegheny. He is easily approached, and no matter how busy always has time to hunt a news item in his line.

Miss Lillie Mills, an employee of Boggs & Buhl, Allegheny, died on May 16 from the effects of a dose of poison taken by mistake. A physician prescribed some kind of tonic and small doses of a form of strychnine. The bottles, which were alike, stood side by side, and she got the size of the doses reversed.

D. W. Holland, brother to Samuel S. Holland, the Smithfield street druggist, died on board a Fort Wayne train May 11, just as the train was entering Union Station. He went West a year or more ago to get relief from pulmonary trouble. His brothers were at the depot expecting to greet him, but were not even in time to see him breathe his last.

Among the candidates for appointment as postmaster of Allegheny City at the hand of President Cleveland was Perry M. Gleim, a druggist. He was not appointed, but at least has the satisfaction of knowing that he made a good effort. Mr. Gleim's papers were signed by 113 of 123 physicians in Allegheny, 34 of the 42 druggists and by about 300 leading business firms and 80 other residents.

Henry F. Egers, one of the inspectors for the Board of Underwriters, a brother of F. H. Egers, the well-known druggist, had a wonderful escape from death on May 17. He fell five stories in the new fourteen-story Carnegie Building, and yet lives to tell how it happened. He tumbled through an elevator shaft, but his fall at each story was broken by loose boards. One arm and several ribs were broken, but his chances for recovery are good.

CINCINNATI.

Cincinnati, O., May 22.—The injunction suit filed in the Superior Court here before Judge Samuel F. Hunt by the John D. Park & Sons Company, against all the wholesale druggists of this city, and George B. Bower, secretary to M. N. Kline of Philadelphia, is of national importance.

The petition filed by the plaintiff is a rather verbose document, and recites in detail the action of the N. W. D. A. in endeavoring to put them in the "cut-off list" from securing proprietary articles. The suit was filed on April 23, and the defendants have until May 26 to make an answer. Messrs. Paxton, Warrington & Boutet represent the plaintiff, while the interests of the defendants will be looked after by Kittredge, Welby & Simmons. The outcome of the case will be awaited with much interest.

The appended petition which was filed by the attorneys for the plaintiff is of unusual interest to the druggists throughout the United States:

State of Ohio, Hamilton County, Superior Court of Cincinnati.

The John D. Park & Sons Company, a corporation, plaintiff,

vs.
The Standard Drug Company, a corporation; the Stein-Vogler Drug Company, a corporation; Hale, Justis & Co., a firm formed for the purpose of and doing business in the city of Cincinnati, Ohio; Lloyd Bros., a firm formed for the purpose of and doing business in the city of Cincinnati, Ohio, and George B. Bower, defendants.

Petition.

The plaintiff, the John D. Park & Sons Company, says that it is a corporation formed for the purpose of and doing business in the city of Cincinnati, Ohio, and that it is engaged in the wholesale drug business at Nos. 171, 173 and 175 Sycamore street; that in the possession of said business it has an established trade in the sale of proprietary articles commonly called patent medicines, and that it is essential to the carrying on of its said business that plaintiff be allowed in the ordinary way from time to time to purchase said proprietary articles in the wholesale market, from the manufacturers of and dealers in the same.

Plaintiff further states that there has been organized and established, with its headquarters or principal place of business in the city of Philadelphia in the State of Pennsylvania, a combination of a large majority of the various wholesale druggists throughout the United States known as "The National Wholesale Druggists' Association," that said association was formed and is now being conducted for the sole purpose of maintaining excessive rates and charges for certain proprietary articles or medicines throughout said United States; that said association has, by refusing to sell the proprietary articles of the various manufacturers of the United States, and by other means to the plaintiff unknown, caused said manufacturers to fix and maintain an arbitrary and excessive scale of prices, which prices the said association and its members have jointly and severally obligated themselves to maintain as aforesaid; and they have likewise bound themselves to sell such articles to only such persons, firms or corporations as shall obligate themselves in like manner and to sell goods and maintain prices accordingly.

Plaintiff further avers that it is a sale of said association to be observed by all its members, that if any member shall refuse to observe and sell according to said scale of prices, such member shall

be reported to what is known as the "committee on proprietary goods," composed wholly of members of said association, of which one M. N. Kline is chairman, and the defendant George B. Bower is secretary; that under the rules of said association it is the duty of said committee to, and, it in fact does, place such member upon what is known as a "cut-off list"; that hereupon said committee, acting through its chairman and secretary aforesaid, reports all whose names appear in such "cut-off list" to all the wholesale druggists who are members of said association, and also the manufacturers of proprietary articles; that such members and manufacturers are then, through such chairman and secretary, requested to boycott or discontinue selling any of said articles to such member so placed on the "cut-off list;" that such wholesale druggists, whether individuals or corporations, as refuse to become members of said association, are treated by the association precisely as members who refuse to observe the scale of prices aforesaid; that the power and influence of said association are so great that after a member or any wholesale druggist not a member refuses in manner aforesaid, the other members of said association and the manufacturers aforesaid refuse further to sell any of the said articles to said member or druggist placed upon said "cut-off list;" that the power and influence thus exerted to prevent sales are not obtained by the failure of plaintiff or others pursuing its aforesaid course, promptly to pay for all goods ordered, for it and they do in each and every instance pay or offer to pay the prices demanded by wholesale druggists, and only refuse to sell such goods according to the unreasonable and extortionate scale of prices so dictated; but such power and influence are obtained and exerted, first, by certain reductions made in said scale of prices—the exact percentage whereof plaintiff is unable now to state—in favor of such retail buyers as deal only with members of said association, and second, by fear created in the wholesalers that unless they agree to sell according to the scale of prices fixed as aforesaid, they will be unable to obtain the goods necessary to the successful prosecution of their business.

Plaintiff further says that the defendants—the Standard Drug Company, a corporation; the Stein-Vogler Drug Company, a corporation; Hale, Justis & Co., a firm formed for the purpose of and doing business in the city of Cincinnati, Ohio; and Lloyd Bros., a firm formed for the purpose of and doing business in the city of Cincinnati, Ohio—are members of said the National Wholesale Druggists' Association, and are competitors of plaintiff in its business aforesaid.

Plaintiff further says that it has been threatened repeatedly by said association and many of its members, that unless it is aided by the said defendants, that unless it would sign a contract binding itself to adhere to the scale of prices aforesaid, it would be placed upon said cut-off list and prevented from obtaining said articles from any one whatsoever; that plaintiff refused to sign such contract or to adhere to the scale of prices aforesaid, and said defendants have in consequence placed plaintiff in said cut-off list, through the committee to place plaintiff's name on said cut-off list, and to notify all the manufacturers of proprietary articles and wholesale druggists throughout the United States of plaintiff's refusal to sign such contract, or to be bound by the scale of prices fixed as aforesaid.

That, in addition thereto, the defendants hereinbefore named have urged and requested the wholesale druggists in the city of Cincinnati and elsewhere not to sell, and have themselves each refused to and still refuse to sell plaintiff any of the aforesaid proprietary articles; that

the defendant, George B. Bower, has been for some time, and he now is, engaged in ascertaining from whom plaintiff endeavors here and elsewhere to purchase said articles, and is greatly injuring and attempting to destroy its said business by having plaintiff boycotted, in manner hereinbefore shown, in the purchase and sale of said articles; that said defendant, Bower, has been and is now also working through others and on behalf of said association so to boycott plaintiff; and that plaintiff is now unable to give the names of the persons so engaged with said Bower.

That the means resorted to as aforesaid by defendants are only a part of the scheme devised by them and their associates as members of the association aforesaid to boycott and destroy such wholesale dealers as refuse to become parties to such scheme; that the means resorted to for such purpose are conducted with as much secrecy as possible, and plaintiff is unable to state all of them for that reason; that one of their plans is to induce their members to sign an instrument marked "confidential," and addressed thus: "Rebate Proprietors and Wholesale Dealers," to wit:

"I beg to inform you that this firm has just signed an agreement under date of _____, the same as that noted below, and have authorized me to place the same in your hands as being executed with each individual proprietor.

"I trust you will act upon this and honor their orders as hereinbefore.

"Realizing the disadvantage to us, and other wholesale druggists resulting from supplying John D. Park & Son's Company at Cincinnati, Ohio, or their representatives, with contract goods, which they are unable to purchase direct by reason of their open and continued violation of the terms under which such goods are sold, we hereby solemnly pledge ourselves not to make shipments of such goods hereafter to this concern, or to any of their representatives, directly or indirectly, and we also pledge ourselves not to sell rebate goods in quantity exceeding three dozen of any retail at one time whose name has been, or shall in the future be, sent us as supplying John D. Park & Son's Company with rebate goods, and hereby authorize you to discontinue shipments of your goods at any time that you are furnished proof that any such goods have been furnished by us in violation of this writing subsequent to this date;" that the name of the firm inserted as shown above is signed to this instrument and underneath that appears the name of "M. N. Kline, Chairman," that said Kline is chairman of the Committee on Proprietary Goods of the National Wholesale Druggists' Association; and that these instruments, called "contracts," are sent only to each and every member of said association, but also to every manufacturer or proprietor who sells goods according to the scale of prices hereinbefore mentioned.

By reason of the foregoing plaintiff has been, and now is, unable to purchase any of the proprietary articles aforesaid from any of the defendants, or from any of the wholesale druggists throughout the United States, members of said association, on any terms, or at any price, and, unless protected against said acts of defendants by order of this Court, plaintiff's business in said articles will be entirely destroyed, whereby it will suffer irreparable damage.

Wherefore plaintiff prays for an order of injunction restraining defendants and each of them from placing or causing plaintiff's name to be continued or again placed on said cut-off list, from requesting, directing, threatening or intimidating any wholesale druggists on account of selling any kind or quantity of proprietary or patent medicines to plaintiff, and from preventing or in anywise interfer-

ing with such sales to plaintiff, also from requesting or assisting said association or any of its members to carry out said contract to maintain prices, and from interfering with the lawful conduct of plaintiff's private business; that upon final hearing said order of injunction be made perpetual, and that such other and further relief may be granted as equity may require.

PAXTON, WARRINGTON & BOUTET,
Attorneys for Plaintiff.

State of Ohio, Hamilton County, ss.
G. F. Park, being duly sworn, says that he is treasurer of the above named plaintiff, the John D. Park & Sons Company, and that the facts set forth in the foregoing petition are true.

G. F. PARK,
Subscribed and sworn to before me this 25th day of April, 1894.

LOUIS A. BROWNBECK,
Notary Public, Hamilton County, Ohio.

The answers in the injunction suit of John D. Park & Son's Company against Hale, Justis & Co., Lloyd Brothers, the Stein-Vogel Co., the Standard Drug Co. and George B. Bower have been filed in the Superior Court. The case is No. 47,587 of Judge Hunt's docket, and the five answers are worded exactly alike, and are as follows:

"Now comes the defendant — — — and moves the Court to dissolve the temporary restraining order heretofore granted in this cause."

On Saturday, May 26, the motion to dissolve the temporary and restraining order will likely be argued by the opposing counsel, Messrs. Paxton, Warrington and Boutet and Kittredge, Willy and Simmons.

The Era correspondent called on a number of the defendants in reference to the suit.

"We are attending strictly to our own business," said Otto Stein of the Stein-Vogel Drug Company. "Of course, we are deeply interested in the outcome of the suit, however, and the case is now in the hands of our attorneys. I think we will show that there are no grounds for the institution of such a suit."

"I hear considerable talk about the suit," said Mr. Foote, of the firm of Hale, Justis & Co., "The petition of the plaintiff, or bill of particulars, as you may see fit to call it, strikes me as an ambiguous document, which is decidedly hard to make head or tail of. It will doubtless be several months before the matter is definitely settled."

"I have not given the matter a great deal of thought," said N. Ashley Lloyd of the firm of Lloyd Bros. "My opinion is, however, that we, the defendants, will come out on top with banners flying."

"Well, you may state that we will fight the case to the bitter end," said Otto Rauchfuss of the Standard Drug Company. "We have good lawyers and so have the other folks, and it will be certainly a battle royal from a legal standpoint. I think we will come out all right."

"I haven't had time to give the matter much attention," said Secretary Dosey of the Standard Drug Company. "The other officers of the company can probably give you more information."

"All we want is our rights," said Mr. Ambro Park of the firm of John D. Park & Sons Company. "Bower has had a detective after us for two or three months, and we were annoyed very much.

Of course your journal is 'foreninst' us, but we hope to come out all O. K.

"I can't tell you when the case will have a final hearing," said Attorney Simmons. "We have not filed our answer yet, but will do so before the allotted time expires. We will likely make a motion to dissolve the injunction, and the matter will doubtless be argued at length. It will be several months before the case is finally heard."

CLEVELAND.

A Painesville druggist advertises a "re-lined" toilet powder.

The Gold Leaf Baking Powder Company is a new Bryan (O.) corporation. Capital, \$10,000.

The Continental Chemical Co. is a new Cleveland corporation, with a capital stock of \$50,000.

The thirtieth annual session of the Ohio Homeopathic Medical Society was held in Toledo May 8.

C. J. Peit has been in the city for a few days looking for a party to handle his quinine whisky.

Brooklyn Village druggists are in clover. The whole annex to Greater Cleveland has measles, more or less.

Benton, Myers & Co. have a lot of second-hand store fixtures on hand if any one is looking for a bargain.

Cream of tartar adulteration cases seem to be rampant in this State, according to the Food Commissioner's view.

B. F. Goodrich & Co.'s rubber works had a boiler explosion on May 15, and fatalities were narrowly averted.

Druggist Consul Billhardt of Upper Sandusky is due in Moscow, Russia, this week, and will assume his official duties forthwith.

The forty-ninth annual meeting of the Ohio Medical Society began at Zanesville, May 16. Columbus will be the next meeting place.

Mrs. E. W. Reber's drug store at Logan, O., was closed by the Sheriff May 7. B. C. Reber, her husband, had the same difficulties last Winter.

The Virginia Oil Company is a new Cleveland corporation, with a capital stock of \$10,000. H. M. Dillhoefer, liquor department manager of Strong, Cobb & Co., is one of the incorporators.

Are you ready for Sin-sin-ity and the association meeting? Never mind refreshments. Old Mother Queen City has a full board. And she has ordered regular St. Louis Summer weather.

The Kubler & Beck Varnish Co.'s plant at Akron was completely destroyed by fire May 12. Loss about \$15,000, partially insured. The same fire damaged the Akron Chemical Co.'s stock to the extent of about \$1,000.

Patent medicines are moving fast. Cut rates? Nostree! Ladies have always that tired feeling this time of the year. The moment they swallow a bottle of X. Y. Z. all cure they are well. Don't the ads. say so?

A pharmacy located on Main or River street would be a paying investment, providing a man acquainted with the characteristics of the locality undertake the enterprise. A typical Irishman would be a typical success.

The amended Whittlesey cigarette bill has passed the House, and is therefore a law. This removes a lot of drivelling nonsense both enacted and in embryo. The new law levies a tax of \$30 a year on wholesalers and \$15 on retailers.

The Williamson Block was ignited by an explosion under the Euclid avenue pharmacy, May 12, and badly damaged. Manager Dreher says his stock is a complete loss. He estimates his loss at \$8,000. The insurance is \$3,700. The Goodyear Rubber Co., located in the same building, also suffered great loss.

The wholesale houses do a satisfactorily active business, while some manufacturing which use acids and grower drugs in bulk are closed. This line continues rather quiet, but the demands for medicines or medicinal drugs is good for these times. Oils, paints and varnishes are active and in growing demand.

En passant, if you go to Cincinnati, don't be attracted by the cut-rate tribe. Cincinnati and cut rates may work harmoniously together, but it won't do here. It is the imperative duty of Lewia C. Hopp to keep his flock from going astray. Cincinnati is a capital place to roost in, but not in her "abbreviated" pharmaceutical hotbeds.

It's a little awkward Cincinnati did not catch the State Republican Convention along with the Ohio Pharmaceutical meeting. As it is, the former goes to Columbus, and is held on the same dates. As most druggists are Republicans, and enthusiastic ones at that, many will find occasion to absent themselves and take a flyer to the near-by capital.

Gus Weisbrodt, the widely known Midgetown two-store druggist, is hard up. Poor Gussie! The bangalls sped off his last available cash. Thirty thousand plunks is said to be the sum spent by him on the race course. Paul Sorg, the tobacco king and Congressman-elect, has been made his quasi assignee. It is not expected Gus will be "down on his luck" long.

Patent medicine cut rates are not generally observed, not even by members of the C. P. A. They justify their action by the habits of their trade, and deem it far more profitable to sell a reduced amount at full rates than a carload at cut rates or cost. As the cut rate practice did not originate with regular druggists it seems that full rates could be re-established without serious results.

State Dairy and Food Commissioner McNeal announces the following appointees for his second term: Drug inspector, J. Sterrett, Troy. Dairy and food inspectors, W. B. Hastings, South Point; J. F. Knouff, Caldwell; W. E. Hurd, Ravenna; E. W. Dilyart, Swanton, and Willis Sells, Columbus. Chemists, H. A. Webber, Columbus; Albert W. Smith, Cleveland; G. A. Kirchmeyer, Toledo; Charles Fennel, Cincinnati.

What will Meyer & Gleim do with their City Hall Pharmacy when the new City Building is erected in the square? Call it the "old" City Hall or "ex" City Hall Pharmacy? Or move with the whole outfit, providing the architect understood the desires of the times? A modern City Hall

without intramural "dope" connections would be a bore, to be sure. Architects not considering this hint, will have their plans rejected.

The McConnell proposition, one of the several medical examiner bills, has passed the House. All physicians in continuous and and honorable practice for fifteen years be exempt from examination. All physicians must register with the probate judge who represents the State examiner. He is appointed by the Governor for three year and receives a fee of \$1.50 from each physician.

"Oh, what a difference in the morning!" G. L. Hechler drawled this obsolete Boweryism when he woke up smiling from the sleep made so deep by Pabst brews. George had seen the beer ad. In the Moving Day number, and forthwith proceeded to test the attested merits, as he is wont to do with everything but patent medicines. He had to admit, under such favorable circumstances, that Newburg was no longer the capital of Cleveland.

A country druggist running a half column of sundry matter in the only official paper of three counties carries this stereotyped remark at the bottom: "I wear no diamonds!" I often wondered, but never bothered until curiosity got the best of me. Looking up the pedigree of the burgh, I found it had 999 inhabitants. Resources three whiskey distilleries, one brewery, one cheese factory, ten saloons, two general stores. Russian settlement. The no-diamond mystery may be herewith explained.

Henry Stecher, of Stick 'em Fast infamy from a fly's standpoint, knows a thing or two about sundry business. Says he: "Perfumery should be sold at less than the old prices by all druggists, as the increased sales would more than make up for the reduction made; besides, the department stores would soon tire of carrying the wares into our domain. The only way of meeting an antagonist successfully is to meet him on equal terms, and duplicate the attempt if you do not succeed at first."

A country druggist who originated in the Vaterland called me up by the long-distance telephone (Fernsprecher, wohlverstanden), and when I succeeded in deciphering German as she is spoken over an Anglo-obstreperous wire, the following problem confronted me: "Why doesn't the Era come out in Anglo-German style—'alf und halb? The Moving Day number she was a dainty, but if she had been half German, lieber Gott! what for a letter dainty she would have been already." I replied in my perplexity that probably Mr. Haynes was one of "them Shermans" that was ashamed of owning up to their origin. "Dot must be so; how smart you be; he's one of 'em, bet yer life; his name was probably Heine." "Just my suspicion," replied I, "for I heard it said he was a direct descendant of Heinrich Heine, the great Jew poet." "Vat you say? A descendant of Heinrich Heine, the Jew poet? You don't say! Gracious, I didn't know he was one of unsre Leut. Say, but that last number was a dainty. What you think of us Jews now? From Heine he comes, so? I must tell Rebecca, my wife, right away. Gracious, but what a dainty she was!"

KANSAS CITY.

Kansas City, May 22.—The telephone is a dangerous substitute for the written prescription. From St. Joseph, Mo., under date of May 18, comes a story of a physician's careless haste, a drug clerk's good nature and a resultant fatality. Late that night the baby daughter of George D. Berry, purchasing agent of the St. Joseph and Grand Island Railroad, became ill. Dr. T. H. Doyle was called to attend the case. He prepared a prescription containing phenacetine, and to save a walk went to the telephone and called up Knight & Quenton's drug store. Edward Donovan, the clerk, responded, and instead of demanding a written prescription, took the one given him on the 'phone and misunderstood it. He put up atropine instead of the other drug, and one dose killed the delicate babe.

"Killed by a careless drug clerk," was the way the item was headed in the newspapers. There were editorial "roasts" on the druggist, but the physician who used the telephone was at once forgotten.

Charles V. Coelln has sold his drug store in St. Louis.

A. C. Simons has sold his drug store at Ida Grove, Ia.

J. M. McDevit has sold his drug store at Wausa, Neb.

J. P. Williams has sold his drug store at Clinton, Iowa.

Charles P. Ochsner has sold his drug store in St. Louis.

I. W. Waynack has sold his drug store at Eddyville, Neb.

The firm of Wilson & Formy, at Oakdale, Neb., has been dissolved.

H. Moulton has opened a new drug store in Phillipsburg, Kas.

Druggist J. A. Hatcher, at Neodesha, Kas., died recently.

Baschnagel & Co.'s pharmacy at Riverside, Ia., was recently sold.

A. Avitt's drug store at Aulville, Mo., has gone into new hands.

W. J. Marvin has moved his drug store from Achille to Herndon, Kas.

C. H. Finley has sold his stock of drugs at Osborn, Mo., to P. M. Hatch.

H. O. Hall has purchased William Chadwell's drug store at Chandler, Okla.

The drug store of Frank C. Garner, Gainesville, Tex., was recently closed.

Brown Bros. have sold their drug store at Hamilton, Mo., to G. W. Penny.

The partnership of E. O. Howard & Co., at Neola, Ia., has been dissolved.

Brengle & Buel have bought Webster & Co.'s drug store at Texarkana, Tex.

G. Newman has purchased E. L. Barringer's drug store in Cedarvale, Kas.

M. V. Hon and H. C. Boon & Co. have recently sold their drug store at Alvin, Tex.

The drug store of E. R. Russell, Humboldt, Kas., has been sold to Louis Perrenoud.

Charley Balbridge of Escondido, Cal., has accepted a position in A. E. Cutter's drug store at San Jacinto.

Druggist J. G. Wirthman has taken out a permit to erect a \$4,000 brick dwelling house at 1924 Troost avenue.

Dr. Waerhouse's drug store at Deep

Crook, Wash., was destroyed by fire recently. Loss, \$3,500; insurance, \$2,000.

A disastrous fire destroyed every business house in Fontana, Kas., except a drug store and a grocery—the two staples of life.

E. H. Shellack, Allen, Kas., has given a chattel mortgage on his entire stock and on some real estate, for a debt of \$82.50.

Deal Brothers' drug and jewelry store at Carthage, Mo., was destroyed by fire recently. The stock, however, was well insured.

The Supreme Court of the United States has formally fixed the status of lager beer by deciding that it is not spirituous liquor.

W. C. Kennedy of Riverside, Cal., has rented the room adjoining his drug store, and is having the partition taken out to enlarge his place of business.

The store of the Zarey Drug Company, at Ash Grove, Mo., was destroyed by fire a few days ago, together with half a dozen other business houses.

Burglars raided the town of Malta Bend, Mo., and among others, broke into the store of the Brown Drug Company, where they drilled the safe and stole about \$40 in money.

The three druggists of Downs, Kas., have caused the arrest of several persons for blackmilling them out of \$1,500 by threatening them with punishment for the sale of liquor.

The Mayor nominated Frank A. Faxon of the wholesale firm of Woodward, Faxon & Co. to be a member of the Board of Public Works. Mr. Faxon declined the office, as he could not spare it the time.

The Charles V. Coelln Drug Company of St. Louis has been incorporated, with a paid up capital of \$6,000. Charles V. Coelln owns thirty-seven shares, H. H. Stuessel twenty, and John Hirth three.

The Jaccard Watch and Jewelry Company has completed a lot of label buttons for the Missouri State Pharmaceutical Association. They have scales in gold, the mortar in white enamel and the background in blue, and bear the name of the organization.

The Midway Medicine Company of Kansas City, Kan., was organized a few days ago, with a capital stock of \$100,000, and was chartered by the Secretary of State of Kansas. The directors are Thomas S. Brown of Kansas City, Mo.; N. Cree of Kansas City, Kan., and Thomas B. Peacock of Topeka, Kan.

Henry P. Scott and Charles D. Ray, doing business in druggists' specialties under the name of the Gem Company at 515 Main street, have been indicted by the Federal Grand Jury for using the mails to advertise unlawful articles for women. Scott has been tried and convicted, and he will be sentenced in a few days.

The following travelling salesmen were recently in Kansas City: Henri Hospital, for F. Patrel & Co., New York; G. B. Swindell, Swindell Bros., Baltimore; Eli J. August, Elsner & Mendelson Company, New York; J. S. Henry, Crown Perfumery Company, Chicago office; H. C. Lockwood, Columbia Chemical Company, Washington, and Dr. Hammond's Preparations.

PHARMACEUTICAL ASSOCIATIONS.

Pennsylvania Pharmaceutical Association meets in seventeenth annual session at Neversink Mountain Hotel, near Reading, June 12, 13 and 14. Complete arrangements have been made for musical and other entertainments, and for an afternoon excursion over the Mountain Railroad.

New York State Pharmaceutical Association, through its local secretary, Chas. F. Fish, announces that reduced hotel rates will be accorded all members or non-members who may be in attendance at its meetings in Saratoga Springs, June 26-28. Ample space for exhibition purposes will be provided.

The Laporte County, Ind., Druggists' Association, at its recent meeting, held in Laporte, elected the following officers for the ensuing year: W. F. Woodson, president; Thomas A. Boyd, vice-president; George S. Dennison, treasurer, and T. M. Godfrey, Michigan City, secretary. The next meeting of the association will be held in Michigan City in August.

Tennessee Druggists' Association held its ninth annual convention in the Chamber of Commerce, Chattanooga, May 16. The address of welcome was made by Hon. R. M. Barton, of Chattanooga. Officers for the ensuing year are as follows: President, J. F. Volst, of Chattanooga; vice-presidents, C. M. Greve, Chattanooga; James Thomas, Nashville; secretary, Will Vickers, Murfreesboro; treasurer, Louis Lawrenson, Memphis. A resolution favoring an amendment to the pharmacy law by which it should be made effective throughout the entire State was adopted. The delegates were tendered an excursion on the Tennessee River.

Milwaukee (Wis.) Drug Clerks' Association has a membership of seventy-six, no debts, elegantly furnished quarters at 323 Chestnut street, and a brilliant outlook for the future. Apparatus, books, specimens of drugs, etc., have been contributed by prominent manufacturers. Officers of the society are: H. F. Weber, president; J. A. Block and M. E. Traylor, vice-presidents; Ed. Meinecke, Jr., corresponding secretary; A. J. Luebke, recording secretary; C. Rogers, treasurer; C. S. Wasweyler and Casper Hennel, censors, and M. Kleinhans, librarian. The association meets bi-weekly, and expects to soon become incorporated.

Illinois Pharmaceutical Association will hold its fifteenth annual meeting at Peoria, Aug. 14, 15 and 16, 1894, in the Y. M. C. A. auditorium. A reception, musical programme and banquet, Wednesday evening, Aug. 16, at Turner Hall, will be tendered to the visiting druggists by the Peoria Retail Druggists' Association. Reduced rates on all railroads belonging to the Western Passenger and Central Traffic Association (for Illinois points only) have been secured on the certificate plan—pay full fare going and return at one-third fare. Peoria is known all over the West as the "Convention City," and the druggists of Illinois can find no better time to enjoy a little vacation from business.

The Alabama Pharmaceutical Association, at its annual convention in Anniston, May 8 and 9, elected the following officers,

after deciding to meet next year in Montgomery: E. P. Galt, Selma, president; J. L. Wikie, Anniston, vice-president; P. C. Candidus, Mobile, secretary; E. E. Elam, Anniston, treasurer. The local druggists tendered the visitors an outing and a banquet at Oxford Lake, for which resolutions of thanks were unanimously tendered by the association.

Georgia Pharmaceutical Association met in Americus May 8. There was a large attendance. An address of welcome by the Mayor, responded to by Mr. Goodwyn of Macon, was a feature of the opening session. Interesting papers were read by many members, among the number being Dr. Durban of Augusta. The officers elected for the next year were: President, John Turner, Columbus; first vice-president, Dr. Curry, Rome; second vice-president, Dr. Dickinson, Thomasville; third vice-president, Dr. Fort, Americus. Dr. S. C. Durban of Augusta was elected president of the State Board of Pharmacy. A banquet at the Windsor Hotel wound up the exercises. "It was the best meeting the association ever held," was the verdict of all present.

California Pharmaceutical Society held its semi-annual meeting in the rooms of the California College of Pharmacy May 8 and 9. There was a good attendance, keen interest being taken in the proceedings, the various phases of the drug business being ably discussed by members present. Papers were read: "Iodine Ointment," S. A. McDonnell; "Dead Stock," W. M. Seaby; "Monograph on the Constituents of Ergot of Rye," W. T. Wenzell; "Bismuth Sub-gallate," Frank T. Green; "Solution Chloride of Lime," H. E. Besthorn; "The Druggists' Bogle Man," Charles M. Troppman. May 9 was "Pharmacy Day" at the Midwinter Fair, and the members of the society spent the afternoon in visiting the various attractions, terminating with a banquet in the roof garden of the Model Cafe, in the Fair Grounds. The toasts and their responses made the latter occasion one to be long remembered by the visitors.

The Mississippi Pharmaceutical Association convened in annual session at Jackson May 7 and 8.

President West called the association to order, and Secretary Carson Lemly called the roll, which showed a full attendance. After routine business the following officers were elected for the ensuing year: N. C. Mosby, Jackson, president; John Hough, Magnolia, and R. R. Ledbetter, Jackson, vice-presidents, C. H. Herbert, Jackson, secretary; W. G. Barnes, Brandon, treasurer. The following committees were appointed: Executive: J. C. Schotell, Dr. Ellis, Utica; H. C. Price, On Papers and Queries; J. P. Mayo, Carson Lemly, S. M. Dampier, George L. Moore, W. T. Matthews. On Trade Interests: P. B. King, John Hughes, O. Lillybeck, E. Lemly, C. H. Cotton. On Legislation: J. W. Eckford, A. G. Cassell, B. Lemly, H. T. West, Wade Harvey, G. S. Beall. On Revision: L. A. Rafter, J. B. Small, C. H. Herbert. Delegates to the American Pharmaceutical Association: J. W. Eckford, J. C. Means, H. T. West. A number of interesting papers were read by J. C. Schotell and others.

The Kentucky Pharmaceutical Association held its 17th annual meeting at Paris, May 16-17. Seventy-five members were in attendance, and the entire proceedings were characterized by harmonious and enthusiastic discussions.

The following papers were read and freely discussed: "Local Organization," Addison Dimmitt; "New Proprietary Remedies," Dr. J. P. Barnum; "Facts from the Prescription File," C. S. Porter; "Glycerine of Commerce," G. Holzhauer; "Artificial Carlsbad Salts," Chas. L. Albus; "Microscope in Pharmacy," Louis Rominger; "Creosote of Commerce," G. Holzhauer; "Syrup of Hydrochloric Acid," O. C. Dily; "Emulsion of Cod Liver Oil," G. Holzhauer; "How the Physician Can Be Influenced to Prescribe the Preparations of the National Formulary," G. Holzhauer. The association prizes were awarded to C. S. Porter and to Louis Rominger for the best papers on commercial and scientific topics, respectively. The following officers were elected for the ensuing year: President, C. J. Clarke, Paris; Treasurer, Charles G. Morris, Louisville; Secretary, J. W. Gayle, Frankfort; Chairman Executive Committee, E.

BOARDS OF PHARMACY.

Wisconsin Board of Pharmacy holds meetings for examination the ensuing year as follows: June 13, Madison; Aug. 17, Racine; Nov. 14 and Jan. 16, 1895, Milwaukee; March 13, 1895, Baraboo.

Maine Board of Pharmacy, at its recent meeting in Portland, granted certificates of registration to Edmund Wilson, Belfast; John K. Parks, Portland, and Lewis N. Messler, Manchester, N. H.

The Iowa Pharmacy Commission has elected J. H. Pickett president, W. L. Leiland vice-president and confirmed the previous election of S. J. Spaulding as secretary and treasurer.

Michigan Board of Pharmacy meets at the Star Island House, St. Clair Flats, June 25 and 26, for the purpose of examining candidates for registration. Meetings for examination will also be held at Houghton, Aug. 23 and 30, and at Lansing, Nov. 6 and 7.

Georgia Board of Pharmacy met in Americus May 7, and examined fifteen applicants for registration. The following were successful: Henry Gann, Columbus; R. W. Mitchell, Savannah; E. A. Gregory, Atlanta, pharmacists; E. B. Smith, Columbus, apothecary, and J. A. Adams, Waycross; E. M. Baker, Savannah; H. W. Doster, Rocky Ford; W. S. Elkin, Atlanta; Ed. P. Holley, Butler, and H. A. Munro, Ellaville, as druggists. S. C. Durban, Augusta, was unanimously elected chairman of the board, a position made vacant by the resignation of John W. Goodwyn. T. P. Marshall and James McMullen were examined May 8, and were given certificates as druggists. Roger Boyd was awarded the Sprague medal. Next meeting, Atlanta, Nov. 12.

John Rosch was recently elected Mayor of Menasha, Wis. Mr. Rosch is also a member of the State Board of Pharmacy.

Asa Foote, Druggist, was elected Mayor of Fort Atkinson, Wis.



JOHN S. MOFFITT.

John S. Moffitt died of consumption on the morning of May 18 was the substance of a message flashed over the wires, and which occasioned great shock to the drug trade. Mr. Moffitt was widely known and thoroughly liked, and particularly was he popular with the trade of the Central and Western States. He was in but the fortieth year of his age, having been born in Pittsburg, Pa., July 7, 1854. His entire life was passed in St. Louis, with the exception of the two years immediately following his birth, for in 1856 his parents removed to St. Louis, where his father entered the drug business with James Richardson. The boy John acquired his early education in the public schools, but at 14 years of age, at the death of his father, he found a family of five brothers, a sister and mother depending upon him for support. He found employment in 1868 as assistant in the laboratory of Richardson & Co., and, until 1889, was continually in service for this house, acting in various capacities and becoming thoroughly familiar with all branches and departments. While thus engaged he

became famous as a sundries salesman, showing a peculiar adaptability to this branch of the business. When on New Year's Day, 1889, the Richardson Drug Company's premises were destroyed by fire, and it was later decided not to continue the business, Mr. Moffitt secured sufficient capital, and with a number of the old employees of the house organized the Moffitt-West Drug Company, of which he was the president and general manager up to the time of his death. The business which he managed and directed has been steadily and increasingly prosperous, standing high in the estimation of its customers, and having acquired a reputation for integrity of dealing and reliability and rapidity in the transaction of business.

Mr. Moffitt always showed great interest in pharmaceutical affairs. The Missouri State Association owes its large membership to his exertions. In St. Louis he was a member of all the commercial bodies, and was highly connected in social circles. He always refused political advancement, preferring a successful bus-

ness career to the worrying life of a politician. He leaves a widow and one daughter, 14 years of age. Besides these there are three brothers, Andrew J., manager of the city department of the firm; Samuel, who is manager of the J. A. Pozzoni Complexion Powder Company, and Charles of the Merchants' Exchange. Mr. Moffitt was treasurer of the Fall Festivities Illumination Company, and took a deep interest in charitable enterprises.

The St. Louis Paint, Oil and Drug Club and Wholesale Druggists' Club adopted resolutions of condolence on the death of Mr. Moffitt. The funeral took place May 29, from the Union M. E. Church, of which Mr. Moffitt was an active member for many years. The services were conducted by the Rev. C. P. Masden, of New Haven, Ct., assisted by the Rev. R. I. Fleming and the Rev. Wilbur F. Williams. The pallbearers were Gov. E. O. Stanard, L. B. Tebbetts, George W. Parker, John W. Kauffman and Seneca N. Taylor.

TRADE COMMENT.

It is reported that Asiatic cholera, after spending the Winter in remote districts of Russia and European Turkey, rehearsing, as it were, for its usual Summer tour, will soon be ready to "take the road." Successful appearances are said to have been already made at Czenstochow, Poland, and in the neighborhood of Lisbon, Portugal. Advance agents will probably reach us by the middle of the Summer.

The Supreme Court of the United States has decided that it has no jurisdiction in the case appealed by Gov. Tillman of South Carolina from the Court of Appeals, which sustained the Commissioner of Patents in his refusal to register "Falmetto" as a trade mark for whisky sold by the State. As the Supreme Court of that State has decided that the Dispensary law is unconstitutional, the trade-mark decision will not occasion much worrying in that section.

The recent advance in the duty on spirits has affected the drug trade of England in much the same way that many of our most prominent men of the trade in this country predict as a result of the proposed increase contained in the Wilson bill. The English duty was raised from \$2.52 to \$2.64 per proof gallon, and this was followed by a raise on the part of manufacturers of from 2 to 6 cents per pound on tinctures and similar preparations. The retailer has to figure this raise in prices as an item in his aggregate loss account, as the advance is not great enough for him to advance retail prices in the face of competition.

In the report on awards made by the jury appointed at the Eleventh International Medical Congress in Rome, we notice that Messrs. Oppenheimer, Son & Co. (Limited) of London have been awarded the gold medal, the highest gift in the power of the jury to confer, for the quality, general excellence and originality of their pharmaceutical preparations, and for the purity and hitherto unobtainable high proteid digestive power of Pepsinum-Oppenheimer (which, it might be mentioned, is manufactured under the Webber patents). The members of the jury—which was constituted of the following well-known professors, Paterno, Rome, president; Daccomo, Modena; Peratonera, Catania; Hans Blinz, Bonn, and Monardi, the president of the Government Chemical Laboratory in Rome—were unanimous in their praise of the exhibit made by this firm.

Professor Monardi was especially interested in the range of pepsins exhibited by Messrs. Oppenheimer, a compliment shared by Mr. J. Le Roy Webber, the originator of the process. When the keen competition and rivalry which existed between the first houses of pharmaceutical manipulation represented at this Congress are considered, the success of Messrs. Oppenheimer is all the more noticeable, and reflects great credit upon the head of the house, Mr. William Oppenheimer, and the general manager, Mr. Robert E. Martin.

It is with this company that Mr. H. Baskerville Mason, son of Secretary Mason of Seabury & Johnson, is associated as special representative.

The money circulation of Japan is officially estimated at \$5,837,892 gold and \$20,481,307 silver. In August of last year one hundred silver dollars were required to purchase sixty-one gold dollars.

The case of the Stearn's Electric Paste Company and Joseph J. Kearney versus Adolph Cremlieux, for an injunction to restrain the defendant from manufacturing Stearn's Electric Paste, was decided in favor of the plaintiffs in the Circuit Court of Cook County, at Chicago, on April 30, 1894, and damages recovered to the extent of \$36, and an injunction was secured restraining the defendant "from at any time entering into the making of any article to be used for similar purposes as is Stearn's Electric Paste, either for himself or for others, whether under some other name or not." This decision was reached after five examinations before a master in chancery, from which it appears that the defendant sold his entire interest in the Stearn's Company on April 29, 1893, to Joseph J. Kearney, and signed a contract not to manufacture any article used for similar purposes. The plaintiffs showed that in June, 1893, the defendant was manufacturing Stearn's Electric Paste and using cartons which he had not turned over to the plaintiffs when the transfer was made. A temporary injunction pending a hearing was secured June 26, 1893, since which time the matter has been in litigation, with the result before stated.

Deputy United States Marshal J. D. Gore has completed the destruction of 6,000 bottles of bogus Worcestershire sauce, which has been stored at 114 Pine street, St. Louis, awaiting the final decree from Judge Thayer of the United States Court. The wholesale destruction is the result of a suit brought against the Western Distilling Company by Lea & Perrins, Worcester and New York, to enjoin them from manufacturing an imitation of the original Worcestershire sauce. On April 12 Judge Thayer handed down his decision and ordered that all the spurious sauce manufactured by the Western Distilling Company be destroyed. Marshal Gore with four assistants began the execution of the order a few days ago. Lea & Perrins have also obtained temporary injunctions against Davis, Rosenburger & Levy and Charles H. Dorsey of Galveston, Tex., and Carson & Foley of Houston, Tex. In the decision of the court it was held that the defendants had used the firm name, signature and wrapper of the plaintiff, and that every vestige of the wrappers, bottles, stoppers, etc., should be destroyed. Mr. D. E. Bennett, a representative of Lea & Perrins, is in St. Louis and has given the matter his personal supervision.

A NEW FUEL.

The following is Maestracelli's method of manufacturing petroleum bricks for fuel: Mix one liter of petroleum, 150 grams of turgitated soap, 10 per cent. of resin and 233 grams of caustic soda. Heat this mixture, being careful to stir it well meantime, until solidification commences—say about forty minutes. If the mixture should tend to boil over, pour in a few more drops of the soda, and continue to stir until solidification has sufficiently pro-

gressed, then pour the semi-fluid material into molds to form the bricks, and place these in a hot room or drying place for ten or fifteen minutes; then remove them and let them cool. In a few hours they can be used as fuel.

To the three elements which constitute the mixture, Maestracelli recommends the addition of 20 per cent. of sawdust and 20 per cent. of clay or sand, which make the bricks more solid and less expensive. Trials of these bricks as fuel have been made at Marseilles on several tugs, and it has been found that, weight for weight, they develop three times as much heat as the ordinary coal brick, and leave no ashes. (United States Consular Report.)

LOOK TO THE MOISTENERS.

Although the use of moistening apparatus is now common to almost the entire retail and wholesale cigar and tobacco trade, there still appears to be many dealers who do not fully understand how much depends upon the care given to them at the Spring and Fall of the year, and it is therefore necessary at these periods for us to sound the warning note, not only to the established people in the trade, but more especially to give advice to those young recruits who may be using them for the first season.

As soon as the steam heat ceases to be used, and the average registration of the thermometer approaches sixty, the moistening cabinets and cases should be emptied out and thoroughly scrubbed out with a hard brush and hot water, and the tin pans, tanks, etc., should be placed in the sun to receive a thorough warming and drying, as well as a practical deodorization, which no artificial heat can duplicate. Where sheets or pads of absorbent matter have been used they should be thoroughly rinsed out in at least half a dozen waters, and should also be placed in the sun, where they may thoroughly dry and warm through. These should then be returned to the cabinets and cases, and during the Summer no moisture whatever should be used except where the air is very dry, as is the case in the mountains and high-lying districts.

Practical experience, however, has proved that it is necessary during the cessation of the use of moisture to open the doors every day in the early morning for half an hour or so, while the day is yet cool, so as to give full ventilation to the goods. This, however, must not be done at the seaside or lake resorts, and it must not be done when the temperature is very humid and overladen with moisture. There are more cigars ruined during the Summer by cases and cabinets being left open on humid days at places located near the water than there probably is by any other type of negligence.

The idea of all this cleaning out and of the sun baths is to render the receptacles perfectly sweet before they are again used for stock, as during the Summer the interior of the cases will be several degrees lower than the outside midday temperature, and when the door is opened a sudden influx of heated air will materially injure the goods unless the greatest cleanliness is observed.—Tobacco.

THE MANUFACTURE OF CALOMEL IN JAPAN.*

By Edward Divers, M. D., F. R. S.

Calomel, in the form common in England and all countries under Western civilization, is now extensively used and is even manufactured in Japan, under the name of kanko. But mercurous chloride is also largely used there under the name of "light powder," keifun (Chinese, king-fun), in another and very much older form, which is of signal purity, and made by a simple process as yet quite unknown in Europe. I witnessed this interesting process from beginning to end some years ago, and now make this publication of it to the society, with full permission of the proprietor of the works I visited, Mr. H. Kokubu, who has aided me in every way he could, and notably with drawings, some of which illustrate this paper.

According to Terajima Kokyo and Ono Ranzan, writers who lived in the last century, the first-named perhaps a little earlier, calomel was known in Japan as far back, at least, as the beginning of the eighth century, having then been presented to the Empress Gemmyo; but their authority is the "Zoku Nihongi," reference to which, Professor Haga, F. C. S., informs me, makes it clear that mercury itself, not its chloride, was the thing presented. In the time of the writers above named, mercurous chloride was well known and was manufactured in Japan, not only at Isawa, a village in Ise, where it is still made, but also in the city of Osaka and in a town near it called Sakai. Mr. H. Kokubu, manufacturer, tells me that records exist at Isawamura of his family having carried on the manufacture of keifun there for the last 300 years.

Far earlier, namely, in the tenth century, Minamoto-no-Shitagao, in his work entitled "Wamyo-ruishu," makes mention of a mercurial preparation named kofun, or "powder of mercury." It is, however, questionable whether this was mercurous chloride or mercuric oxide, and therefore whether calomel was known or not at this time. But since calomel, under the name of keifun, is mentioned by Chinese writers even earlier than this, it may be safely accepted that Japanese knowledge of this body is older than ours in Europe. The Western knowledge of chloride of mercury dates from the first half of the sixteenth century, but the distinction between calomel and corrosive sublimate was not recognized till near the end of that century.

The literature on Japanese calomel is meagre. Japanese writers of the old school have contented themselves for the most part with translating Chinese writings. One Ranzan mentions that the Japanese method differs from the Chinese in making use of water in place of alum and other chemicals, in which he came near the truth. The late Dr. Geerts, a Dutch pharmacist, who in the government service did much in establishing Western pharmacy in Japan, treated of keifun in some metallurgical contributions he made to the "Transactions of the Asiatic Society of Japan." What he wrote is contained in Vol. IV, (1875), and consists of information almost exclusively about Chinese cal-

omel, and derived more from Chinese and Japanese writings than from any experience of his own. Concerning Chinese calomel English readers have the "Notes on Chinese Materia Medica," among the "Science Papers" by the late Daniel Hanbury, F. R. S., edited by J. Ince. Hanbury mentions, as the result of his own observation, the characters of kingfun and its great purity but for the presence of minute, transparent, acicular crystals of calcium sulphate. He refers to Porter Smith's "Contribution Toward the Materia Medica and Natural History" of China for an account of the manufacture. Smith, however, takes his information solely from Pearson's account on p. 59, Vol. III, of Sir J. Davis' work "On the Chinese." I have not seen this book, but it is clear from Porter Smith that Pearson again has only derived his information from the Chinese Materia Medica, Puns-tsaou-kang-muh, and not from his own observation, and it amounts to this; Common salt and mercury, of each 1 ounce; alum, 2 ounces, or salt, mercury, coppers, and saltpetre, in some such proportions are rubbed together and put into an iron bowl, which is then covered with a roomy earthen dish well luted down. This is exposed to the heat of a strong charcoal fire for four or five hours, when water is thrown on the cover and the cover taken off. On its inner surface the calomel is found adhering in the form of a beautiful feathery white sublimate. Ten parts of mercury are said to yield about eight parts of calomel. Dr. Geert's paper, already referred to, contains essentially the same account, translated from the Japanese version of the Chinese work.

Lastly, there is a paper in the Japanese language on the manufacture of keifun at Ise, which is the forerunner of the present one. That paper appeared in 1857, in the Journal of the Tokyo Chemical Society, written by Mr. T. Shimidzu, M. E., F. C. S., my former pupil and colleague, and it was his description to me of what he had seen that led to my own visit to Ise in company with Professor Haga in the following year. In one or two points I have availed myself of this paper to make my own account more complete.

Keifun is in very thin, minute scales, lustrous, transparent and white or faintly cream-colored. It might be described as micaceous calomel. To the touch it is soft and smooth. Measured in bulk, dry, it is four times as voluminous, more or less, as the ground calomel prepared by the European process, and can be readily scattered by a puff of the breath. Rubbed hard in a porcelain mortar, it gives the brown resinous streak characteristic of calomel, and the evidence, therefore, according to pharmaceutical authorities, of its freedom from corrosive sublimate. Exposed to bright sunlight, it gradually assumes a light brown color; a color, that is, having no affinity to gray or black. Moisture does not seem to favor this change, which is certainly not owing to any reduction to metal. European calomel suffers a similar change. Keifun is free from corrosive sublimate and from metallic mercury.

Hanbury found selenite in Chinese calomel, and Geerts found calomel of this form generally adulterated with selenite and mica; but whether what he examined was ever Japanese and not always im-

ported Chinese calomel he does not show. I have found keifun as it came direct from Ise quite free from adulteration, and have not met with any adulterated.

The materials for making Japanese calomel are mercury, an arenaceous red clayey earth, bay salt, bittern or salt mothers and air. The mercury is imported from Europe, but in old times it is said to have been found in the neighborhood of Ise, as cinnabar.

The earth, called mitsuchi ("seed earth"), is all taken from a neighboring hill, Shunakayama, and, according to Mr. Kokubu, many other clays have been tried in place of it, always with bad results. It is of a rather light brown red color, which changes to a duller and somewhat brown red on drying and gently heating the earth, and to a light ordinary brick red by a strong heat. As mined, the earth is seen to consist largely of colorless quartz grains. Besides the quartz a very little biotite is seen sparkling through it. The fresh, damp earth does not form a compact mass, but a slightly cohering aggregate of damp crumbs. This texture appears to be due to the earth being a mass of quartz in small grains, from the size of a hemp seed down to that of impalpable particles held together by plastic clay. For use, that which does not contain coarse quartz grains too abundantly is selected, and it is made into briquettes and moderately baked on the hearth of the fireplace under the calomel pots. These briquettes are then as light and porous as the prepared porous clay used in Fletcher's gas furnaces. The raw earth, air-dried, is readily rubbed into its constituents by the fingers; and the baked briquettes very easily and rapidly reduced to a soft powder, quartz grains and all, in the agate mortar. The larger grains of quartz in the raw earth are also very brittle. I have treated thus fully of the mechanical characters of the earth, because probably much of its efficiency is due to them; but its chemical character also calls for notice. As baked ready for use, it contains in the thoroughly air-dry condition still 5 per cent. and more of water. Before ignition it is almost entirely decomposed by sulphuric acid, either in some days in the cold or quickly by heat. It is also largely acted upon by hot hydrochloric acid; and, heated in sealed tubes with this acid to 120 to 150 degrees, it is almost as fully decomposed as by sulphuric acid. It contains practically no silica soluble in hot sodium carbonate solution, but after acid treatment yields, of course, much silica to this reagent. The composition of the earth, as found in use at the works, but rendered anhydrous, is as follows:

Quartz.....	33.4
Combined silica.....	24.2
Alumina.....	26.3
Ferric oxide.....	10.5
Magnesia.....	0.3
	99.7

The magnesia is only got by fusion of the finely-ground earth with alkali carbonate, and belongs to the particles of mica scattered through it. Only doubtful traces of phosphoric acid could be found, and, what is specially to be noted, no lime whatever. The earth is thus nothing but quartz, kaolin, ferric hydroxide, and a very little biotite, and is probably valu-

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able to the calomel maker, not only for its highly porous texture, but also for its negative chemical qualities.

The bittern and even the rough hay salt contain magnesium chloride, and this rather than sodium chloride must be the source of hydrochloric acid in the process. That air finds a graduated entrance to the other materials by diffusion during the process will become evident from a consideration of the set-up of the apparatus.

The apparatus for making Japanese calomel consists of a table-furnace supporting sixty cast iron pots lined and surmounted with the Shunakayama earth or mitsuchi, on which rest, as covers and condensers and receivers of the calomel, unglazed clay cups, bottom upward.

In Fig. 1 the furnace as it is when in action is seen from the working side; ten pots on the left side are shown still to be charged and covered. The wooden step in front enables the workmen to reach over the table easily when charging the pots or emptying them. In Fig. 2 the furnace is seen from the back or firing side, and with the walls broken away to show its interior and the method of firing. In Fig. 3 the mounting of the pots is shown in three stages by sectional plans of the table.

On a smoothed clay hearth the walls of

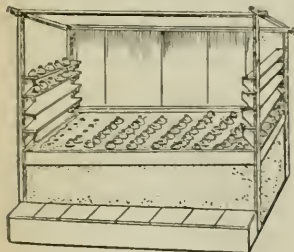


FIG. 1.

the furnace are raised in clay, building in the three stones which frame the stoke hole (Fig. 3). The walls are 2.6 feet high and the inclosure is 7.6 feet by 4.7 feet, measured outside. The stoke hole is 1 foot by 1 foot, but a little wider than this at the base, and is without door. The table of pots and roof of the furnace is constructed (Figs. 1 and 3) by laying a square iron rod on each of the long walls, and on these 11 cross rods, also square, on which are to rest the flanges of the pots. The pots are then put in position as close together as possible, hanging by their flanges, in ten rows of six each, and plastic clay pressed into the openings left between the flanges and the roots, and the roots and flanges covered in so that only the mouths of the pots remain visible, as shown by the middle rows in Fig. 3. The furnace clay being thoroughly dry, it is deeply laid over with the red earth mixed with a little bay salt and moistened with bittern in small quantity. The pots are also filled with the same moist red earth, except in a central cylindrical shaft (see the left side of the furnace table in Fig. 1 or the right side in Fig. 3), reaching to the bottom of the pot, which is left bare. The pot is 0.5 feet deep inside, and across its mouth, inside, is 0.45 feet. It is shown

in Fig. 4. The shaft or cavity left in the lining is 0.18 feet in diameter, and is shaped by resting a wooden core on the bottom of the empty pot, and then pressing in the moist earth around it, smoothing off the top, and dropping a perforated board over the projecting core to hold

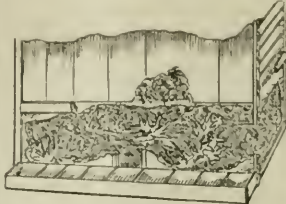


FIG. 2.

down the earth while withdrawing the core, which is then removed by its handle. The furnace is now ready for work. It should have been mentioned that after the clay walls of the furnace are built they are framed in with wood to increase their stability and to give support to a wooden back and to shelving above the table, as seen in Fig. 1.

The firing the pots is kept far below what are usually regarded as furnace heats. The fuel employed is wood, and the Japanese are clever in the use of this economically and effectively in firing pots for boiling, evaporating, distilling or subliming. The method of heating is seen in Fig. 2. Five lengths of firewood are ranged along the back and front walls on the hearth, generally raised at one end by resting on a lump of clay. In the ordinary working of the furnace as I saw it, the heat from previous work is sufficient to kindle the fresh wood. The flames rise up the sides and run over the bottoms of the pots, leaving the central space in the chamber free from flame. The air enters by the lower part of the stoke hole and the products of combustion escape invisibly by its upper part, so perfect is the combustion. At the time of first lighting the fire, and of irregularities in stoking, some smoke is unavoidable, and to keep the top and table free from this smoke and from ashes, a wooden back is put in above the table, as shown in the figures.

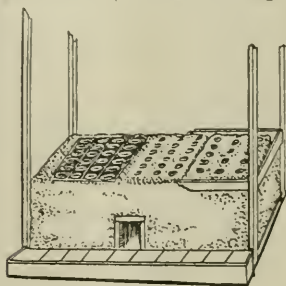


FIG. 3.

There are also a wooden hood and flue above the stoke hole to carry off any smoke; this is not shown in the figures, but is similar to those put up in England and elsewhere over the working doors of furnaces to protect the workman from

arsenic, sulphur or other noxious fumes. The heating is so well effected that the pots, two feet above the burning logs, are made sufficiently hot, barely red-hot at the bottom, and yet the wooden frame on the outside of the furnace is not charred and the workroom is not unpleasantly warm.

About three bundles, or forty pounds, of wood serve for one firing, and it is remarkable to see so little fuel working so many pots.

A compost of burnt mitsuchi with about a fourth of its weight of bay salt is made up with bittern into lumps the size of large chestnuts.

The furnace being hot enough the mitsuchi surface of the table is once for all freely wetted by a watering pot, perhaps half a gallon of water being used, all of which is absorbed; a lump or two of compost is dropped, by tongs or by hand, into each pot in rapid succession, a very small spoonful of mercury poured into each pot, the total charge for the sixty pots being somewhat less than one pound avoirdupois (more exactly five-sixths of a pound), and a clay cup, bottom up, placed over each pot and adjusted by gently pressing



FIG. 4.

(a) Tongs for lifting and dropping the lumps of wet compost into the pots. (b) Clay cup condenser. (c) Brass mercury spoon. (d) Iron heating pot. (e) Rectangular iron bars for pots. (f) Wooden core and board for lining pots. (g) Bamboo water pot for wetting furnace top. (h) Quill feather for emptying cups. (i) Peel for lifting compost ball out of pot.

and turning it round slightly. The cup is thus made to fit neatly on the earthen top without adhering to it in the least. The cups are thick and unglazed, but become very smooth inside by use. They have an inside diameter at the mouth of six inches and a depth of three inches.

Thus arranged the pots and cups are left for three hours, and during the latter part of this time the furnace is cooling. When cool enough each cup is lifted in turn, and with two turns of a feather, the kelfun or calomel, which fills it in the form of a sparkling network of delicate crystalline scales, is transferred to a sheet of paper held under it, and the cup, mouth downwards, placed on a shelf of the furnace ready for use in the next operation.

The calomel, it will thus be seen, forms no adherent cake in the cup, but particles only loosely hanging together. So ob-

tained, it is ready for the market, needing only to be packed in small wooden boxes for sale.

The spent lumps of earth and salt are lifted out of the pots by the tool shown in Fig. 4, and when the furnace has become still cooler, the fire is made up again, the furnace top freely wetted, and a new operation set going as before. The furnace is worked twice each day. Nothing could well be carried out with greater simplicity and less expenditure of labor and time.

The loss, I am told, is about 16 per cent. of the theoretical amount of calomel, which is, I believe, about twice as much as is lost in the Western process.

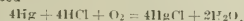
If one of the cups is removed a few minutes after the operation has been started much of the mercury is found in it as a sublimate of fine globules, mixed with only a little almost amorphous calomel, from which it would appear that the formation of the calomel results from reaction in the cup between the mercury in vapor and the active gases.

On dipping into the pot, uncovered during the process, a glass rod with a drop of water hanging to it and then withdrawing it, and testing the remainder of the water with potassium iodide and starch, no chlorine can thus be detected. The same is true when a drop of solution of potassium hydroxide is used. Nor can the slightest odor of chlorine be detected in the vapors issuing from the uncovered pot.

On passing air, containing a little hydrochloric acid gas, through a tube in which mercury is freely boiling, sparkling calomel is formed close to and mixed up with the mercury.

Red earth which has been used in the process turns moist, red litmus paper blue, while fresh red earth is neutral.

The nature of the materials used and the observations gained by the preceding experiments are sufficient to establish that the calomel is formed by a reaction between mercury vapor, oxygen and hydrochloric acid gas, in which, along with mercurous chloride, water is formed—



and that the formation takes place at a temperature near—above or below—the boiling point of mercury, and much below that at which calomel freely volatilizes. The source of the hydrochloric acid is certainly the magnesium chloride of the bitter and bay salt which, heated in a moist atmosphere, even in the presence of sodium chloride, is, as is well known, partly converted into magnesia and hydrochloric acid. Hence the alkalinity of used mitsuchi.

The porosity of the walls of the apparatus, particularly of the layer of mitsuchi on which the clay cup rests, must be more than sufficient to allow enough air to enter during the working. I had supposed that the hot hydrochloric acid and air might, in contact with the earth, have yielded a little chlorine, but the temperature reached in the process normally worked seems never to reach that required for the liberation of chlorine.

The Chinese process, if correctly described, differs from that used in Japan in several material points, one of which is that the mercury is intimately ground up with the other materials, and one fails

to see what reaction can take place between it and the two others, namely, salt and alum. Heated, the mixture must give off mercury and hydrochloric acid, and then these, as in the Japanese process, will, with air, give the calomel, but this is independent of the previous intimate mixture of the mercury with the salt and the alum. Another point is that in place of the magnesium chloride of sea water as the source of hydrochloric acid, the Chinese are said to use alum or coppers, which, with the salt, will react to give hydrochloric acid. A third point is that the cover is said to be closely luted to the iron pot, which must nearly exclude the air, without which it is impossible to explain the formation of the calomel. Perhaps this is the reason why the Chinese process is said to take four or five hours' firing, since this may give time enough for the needed oxygen to diffuse through the cup and luting, it will also account for the fact, if it is one, that the yield of calomel is markedly less in weight than the mercury used. Again, there are to be noticed the statements that the iron pot is exposed for hours to the strong heat of a charcoal fire, and that the hot clay cover is cooled by throwing cold water on it, statements which must be regarded as greatly exaggerated if not erroneous. Lastly, the calomel-giving vapors are allowed to remain in contact with the hot iron of the pot, instead of being kept from it by the thick lining of earth provided in the Japanese process, a contact which such vapors could not stand without destruction. I think, therefore, that we may be fairly doubtful whether any reliable description has yet been given concerning the Chinese process, which we may expect to find differ little, if at all, from the Japanese process, except in salt and alum being used in place of the mother liquor of sea salt or "water," as One Ranzan supposed it to be.

One thing to which attention may be called is that the Chinese are stated to add some nitre to a similar mixture when employed to give corrosive sublimate. For that being the case, it is seen that free chlorine which would here be developed from the salt, nitre and alum, is necessary for the production of the higher chloride, and that air and hydrochloric acid can only yield the lower chloride, a difference of much theoretical interest, and, indeed, of practical moment also. It is known that re-sublimation of calomel generates some corrosive sublimate, and, although authorities are not quite agreed as to whether reaction occurs between gold leaf and calomel vapor, it is hardly to be doubted that such reaction does occur. Now I have found that if in the Japanese apparatus the temperature of the cover be raised sufficiently to volatilize much of the calomel the remaining calomel is no longer free from corrosive sublimate. It must, therefore, be borne in mind that the calomel formed in the Japanese process is not, and cannot be, the result of true sublimation, but of precipitation as fast as formed from the three gaseous bodies which give rise to it. At the temperature at which mercury boils calomel is either quite fixed or, at most, has a vapor of exceedingly small tension. In the two facts that the three gases do not react to yield corrosive sublimate and that the calomel is not heated to its

volatilizing point, lie the explanation and, at the same time, the assurance that Japanese (and Chinese) calomel contains no corrosive sublimate.

The Japanese prepare calomel pure, above all things free from corrosive sublimate. They heat balls of porous earth and salt soaked in bitter along with mercury, in iron pots lined with earth. The heat forms hydrochloric acid from the magnesium chloride in the bitter, and the mercury sublimes into the closely fitting but unattached clay covers of the pots. Air enters by diffusion and oxygen and hydrochloric acid gas act together in the hollow cover on the vapor given off from the sublimate of mercury there formed. The cover thus becomes filled with a network of micaceous particles of calomel, precipitated at a temperature below its subliming point at the moment of its formation.

This investigation of an interesting product of Japanese industry has been carried out under the authority of the Imperial University of Japan. I cannot acknowledge fully enough the indispensable assistance I have received from my colleague, Assistant Professor Haga, F. C. S.

COLLECTING AND CURING GINGER IN JAMAICA.

By Wm. Fawcett, Director of Public Gardens and Plantations.

The collector-general reported that during the year the average prices realized for ginger in several parishes were as follows:

Kingston, 50-55 shillings per 100 pounds; St. Ann's, 50 shillings per 100 pounds; Trelawny, 36-41 shillings per 100 pounds; St. James, 52 shillings per 100 pounds; Hanover, 45 shillings per 100 pounds; Westmoreland, 60 shillings per 100 pounds; St. Elizabeth, 30-48 shillings per 100 pounds; Manchester, 163-40 shillings per 100 pounds.

Information was sought from the collectors of taxes as to the reasons for the varying prices, whether proceeding from the difficulties in curing or from some other cause, and also as to the method of curing in different parishes.

It appears from answers with which I was favored, quoted below, that the variation in prices in the different parishes arises generally from causes independent of curing, but that low prices anywhere indicate want of care in curing, or that ratoon ginger is harvested. This latter product consists of the pieces of ginger left in the ground after harvest, and are dug up the following season and sold at less prices than the first crop. Further consideration will be given to this subject, and I hope to visit some of the districts when the harvest is being brought in.

Hanover Collectorate.

"My remarks in my last quarterly report were based on ginger which came under my observation as several lots were sold to the traders here mildewed, and in one or two cases soft and spongy. I inquired at the time what was the defect in curing which had caused the depreciation in the condition and quality of the ginger, and I was told that ginger, to be successfully cured after it is scraped, must be kept away from the damp or rain, and be subjected every day to exposure to the sun in a dry

place, until it is perfectly hard. The ginger mildewed had not received proper attention in this respect, which accounts for the low price which the ginger of this parish brings; and the soft spongy ginger had not arrived at proper maturity, otherwise grown, and had been put away damp into bags. I thought, as the matter at various times came within my notice, that this want of proper attention to a valuable commodity was productive of a great loss. In the Seafort Town District I understood that greater care is exercised, and as a result much higher prices obtained.

"E. P. Fuller.

"Revenue Office, Sav-la-Mar."

"As far as I have been able to ascertain, the price obtained was not so much due to superior preparation by the producer as to competition on the part of purchasers.

"I am able to state that the mode of preparing ginger in this parish is by scraping and washing and carefully drying it in the sun.

"The low prices given in the early part of the season are for ratoon ginger, which is often reaped before it has attained maturity, and almost immediately mildews for want of constant sunshine, which prevails only later in the ginger season. AUBREY G. FACEY.

"Internal Revenue Office, Black River."

"The information I have been able to gather is this: The ginger is scraped and peeled with knives by the growers. The knives are specially imported and known as ginger knives. The ginger is then washed once or twice and turned out to dry on mats, care being taken to provide against mildew.

"I have never heard of ginger being boiled for purposes of curing. I should imagine that such a process would deteriorate its strength and impair its value to an appreciable extent.

"The difference in price is due to the quality of the ginger as well as to competition. A very superior description is grown at Seafort Town in Westmoreland, on the borders of St. James, and owing to a very keen ginger trade done in Montego Bay, where most of this commodity is taken, the Westmoreland traders, if desirous to compete, must be prepared to outbid the traders from Montego Bay.

"In the Piskah Districts of this parish a good quality of ginger is cultivated, which has been known to fetch 54 to 58 shillings in Black River, but the bulk of the ginger brought down to Black River is of an ordinary description, where there is little or no competition, which accounts for the differences in prices between St. Elizabeth and Westmoreland.

S. E. PAYNE.

"Collectorate St. James.

"The process of removing the skins of ginger by means of boiling is not known in this parish so far as I can gather, and is regarded as one calculated to reduce the spice of the article and lessen its value as such.

"The mode adopted for removing the skin is by paring with a sharp, thin, narrow-blade knife (properly called scraping) a protracted and tedious job. It is then dried on a paved terrace, boarded platform, or mats made of the stalks of the leaves of the banana or plantain

are being taken at the time while drying, but the ginger does not get wet, and, at the same time it is frequently and carefully turned over to avoid mildew.

"I am afraid the price obtained between one parish and another is no criterion of quality, so long as the ginger is not at all passable; it depends on the demand for the trade for the article by the exporting merchant during the particular season, to fulfill an obligation to supply a certain quantity probably, and it therefore must be procured, if even at a loss. This principle descends to the smallest shopkeeper, who finds it at times to his advantage to procure as much ginger to be placed to the credit of his account with larger traders, with whom he may be dealing, and who in turn may be equally glad to get such a remittance at a given time even in preference to cash.

"I have no doubt that produce is thus procured at prices unwarranted by the ruling market's value abroad, and the small shopkeeper probably discovers for the first time, when he delivers his purchase, a loss in weight, and likely in monetary value, too, from depreciation in quality, and so on with the next man in his turn. J. W. GRUBER."

Collectorate Manchester.

"Ginger—There are two descriptions grown here, the yellow and the blue, the yellow being the superior quality. To obtain best ginger it must be planted every year on virgin soil; it is ready for harvesting from March to December in ratoon, and plant-ginger after Christmas up to March and April. The crops grown on the same land after the first year are called ratoons, first, second, third, respectively. The gathering is much after the manner of taking in a potato crop, the pieces of stems (from which the ginger is taken) being left in the ground, and, matted up, are what form the ratoons which year by year become inferior in quality and is abandoned when it cannot bring more than 16 shillings per 100 pounds.

"Ginger said to be grown in Manchester, the bulk of it comes from over the border of the parish some miles away in Trelawny, St. Ann and Clarendon. It is purchased in centres there up to 40 to 45 shillings per 100 pounds, according to the fineness in quality (it takes some years to be a competent ginger-buyer), the purchaser having to transport the same. The best descriptions are brittle and easily broken, which depreciates its value. Considering its bulk and lightness, a heavy item for cartage has to be added: A barrel of the best quality will be many pounds lighter than the inferior; some finds its way to Montego Bay; what comes this way is shipped via Kingston, a distance of over ninety miles from where grown. The distance for transport is not so great in Westmoreland, Sav-la-Mar and other places. This may account for the difference in prices between this and the Westmoreland ginger.

"It may be that the Westmoreland buyer pays too high, or that the grower abandons the ratoons and keeps to the growing of new plant-ginger every year, and so maintains a uniform price, or that the soil is better adapted and yields bolder samples, hence better results. The writer

is inclined to the opinion that the difference in prices arises from the difference in root and rill carriage. It may be noted that some of the ginger shipped from the districts stated 'via Manchester' brings the highest price in the English market, which will go far to prove that the quality can hardly be considered inferior.

"Preparation of Ginger.—When taken out of the ground it is washed free from dirt, then experienced hands peel between what are called the toes, to avoid their being broken off, as the large branches or bold pieces bring the best price. It is then handed to less experienced hands to peel off the outer portions of the skin. The knife used has a very narrow blade, which is riveted into the handle and cannot shut. The blade cannot be too thin and narrow, as it has to cut between the toes, which grow very close to each other. When peeling is finished each piece is thrown into a bowl of clear water, and afterwards thoroughly washed, then put on mats, i. e., stands are made of crutch-sticks driven into the ground and of even height; strengthening pieces to in parallel lines. Mats made of thatched palm are then spread, and drying commences. The ginger must not get wet when once it begins to dry, and is then taken in every evening. Some parties use lime juice in washing, with a view to make the ginger white and insure a better price. It is invariably found when so treated that it mildews, thus injuring and considerably reducing the value. No ginger is as that which is washed in pure, clear water properly, and thoroughly dried.

"Curing with Boiling Water—I am glad to say that it is not resorted to on this side as far as I am aware.

"In view of the constant demand for virgin soil for the production of fine ginger, its exhausting effects on the soil, the wholesale destruction of valuable timber in forest lands fire being the only agent for cleaning up for planting, one can only realize by a visit to the district the alarming destruction from year to year going on, the drying up of streams, the tens of thousands of pounds of valuable timber lost in smoke; the now varying rainfall, the soil becoming so impoverished that only ferns will grow on it afterwards, with other attendant evils. The conclusion arrived at is, the sooner the production of ginger is abandoned the better. A howling wilderness of barrenness marks its progress in every direction, and the worth of ginger is the outcome of ten times the destruction. GEO. NASH.

"Bulletin Botanical Department, Jamaica, through Am. Jour. Phar."

INSTRUCTIONS TO SALESMEN.

Mr. F. Madener, a prominent Chicago merchant, attributes much of his success in selling goods to an observance of the following rules which he has compiled for the use of his traveling men. They appear to be of such general application to all departments of trade that we reproduce them as they originally appeared in *Mida's Criterion*:

INSTRUCTIONS.

Report at the office the exact time at which you start to go on a route. Do not deviate from your route except you hear of important business, but even then await my advice by telegram before changing the route.

After starting out on a trip, finish it without going home, and then going out again on the same road, except in cases of sickness or unavoidable circumstances; in all cases, however, inform the office at once of your intentions.

If you arrive from a trip during business hours, call at the office before going home.

Report in writing every day, as only for those days of the trip on which letters or postal cards were sent expenses will be allowed.

Always keep me informed where letters can reach you in three days. Inquire for letters or telegrams as soon as you reach a town and before you leave it.

Report all prospective sales if customers intend to come to the city, and ascertain the time of their arrival and their stopping place.

The regular time given on goods is 30, 60 and 90 days; give a full report in all cases where the bills are running over four months, and if parties do not pay, make arrangements for payment and report in detail about it.

All sales which have been running over six months will be deducted from your credit sales account, as the time lost and expenses incurred for collection will swallow up the commission.

Report also the reasons when customers refuse to buy.

If you know of a chance to sell to parties with whom you cannot deal on account of some former trouble you may have had with them, do not ignore them but notify me of the fact, so they may be attended to in some other way.

Endeavor to get new and good customers wherever you go.

If any business too complicated for you should turn up, report the same at once and do not leave the locality until you hear from the house.

In making close sales, state the time, which you should make as short as possible. Close buyers cannot expect much money spending of long time.

If you have orders outside of my line of business, report them to the house, and I will attend to them in the interest of the customer. I do not allow the selling of other goods and making commissions thereon.

When the whole trip is finished, make statement of same; report all matters that you might have overlooked in your daily reports, take a rest of some days, according to the length of the trip made, get all the rest you can, but call at the office every day, and if you have any suggestions to make which will be to the interest of the house, you are requested to do so.

Deliver all the money collected, deducting expenses, at the office, and draw your salary from the cashier in the same manner as all other employees of the house.

Try to do business during business hours and as early in the morning as possible. Do not visit customers after supper if you can help it, as this is the time to make out daily reports and cash accounts. Stop at good hotels.

All orders brought by you personally you must enter in the order book yourself, so as to avoid mistakes, and if any should have been made, to find out who made them, also look over all orders sent in by you during your last trip.

These rules must be strictly observed and are not to be regarded as a dead letter.

TO CURE HARD-DISEASE FALLER-FIT BY WORDS.

OR TREATMENT WITHOUT MEDICINE

BY WILLIAM T. HUFFNALLE.

I am now Prepared to Cure "HARD-DISEASE,"
FALLER-FIT by Treatment of words, and if
I can not cure in one session I
WOMEN is suffering say
of these Diseases, should write to me.

ANY MAN OR

of these Diseases, should write to me.

TRIAL ORDER,

no need to be done. All that you have to do is. Write to
me and I will send you the book. I give it to you
 Respectfully yours.

WILLIAM T. HUFFNALLE,
KALPELLA, INDIANA

CHRYSTAL

A "WORD" CURE.

One reads with curious interest of the ancient practices for the cure of "king's evil," or the incantations of savage medicine men, and the time and environment for such things seem far distant from us. It is quite true that in certain sections of the country the "blowing" of fire from burns, the "measuring" of children to prevent "stunted growth," various mysterious operations for the cure of warts and the carrying of buckeyes to cure rheumatism are popular practices, but it has always been supposed that in localities where such curative methods were in vogue the schoolmaster did not stir much abroad, and the power of the printing press was not making itself felt. A friend of the Era has, however, discovered a brilliant exception, which seems to clothe the foregoing observation with the dignity of a rule. In the instance noted modern methods are made to support old ones. That great engine of civilization, the printing press, lends its aid in support of therapeutic ideas which were, perhaps, extant in the fifteenth century. The advertisement shown herewith, which is taken from "Printer's Ink," is a photographic reproduction of a handbill which is being circulated in the vicinity of Grantville, Pa. It speaks for itself, and extended comment upon its salient features might spoil the effect upon the reader. The typographical style of the "ad." savors somewhat of the "way-back" period, and the spelling may have been borrowed from "Canterbury Tales," but this phase of the subject is not one for unreserved ridicule. We doubt very much whether any of our bright advertising experts could take this matter in hand and design an "ad." which would attract as much attention, or could present the subject in such a way that every word would be read. Although this individual who refers to his professional services as a "trial order" might find condemnation in the code of ethics on account of his penchant for advertising, yet our brethren of the regular profession will recognize the fact that they must use words themselves (and strong ones, too), in dealing with such competitors. The sociologist might find here a pre to his own liking, while the advertising crank may look at the production for a long time and wonder what there is in the crude arrangement which attracts attention.

THE RETAIL DRUGGIST AND THE INCOME TAX.

To the Editor:

H. R. 4864, "An Act to reduce taxation to provide revenue for the Government, and for other purposes," as it is officially known, or the Wilson tariff bill, as it is popularly known, imposes a tax of 2 per centum on the amount of all individual incomes in excess of \$4,000.

Now, of all taxes, it would seem this tax would be the last to interest the retail druggist.

While the balance of the world for some unexplainable reason seem to believe the drug business is all profit, and believe the druggist to be an envied mortal, who has nothing to do but to rake in the greenbacks, the druggist himself knows only too well how far away the realization is from the popular conception. Not many druggists will be called upon to pay the 2 per centum on their incomes under this section.

There is another section of this bill, however, that taxes his income, and levies the tax in such a way that there can be no escape. The bondholder and capitalist may dodge their taxes, but this tax on the druggist's income is one that cannot be dodged.

If he does business he must pay it, and the more business he does the more he pays.

The bill increases the tax on proof spirits 20 cents per gallon, or 36 cents per gallon on alcohol; alcohol will cost him at least 5 cents a pint extra if this increased tax stands, as the distiller is entitled to the fraction of a cent extra for interest and profit.

The druggist's tinctures, liniments and other alcoholic preparations that are sold by the ounce, afford him a good profit; they are about the only things left him that do afford a good profit in these days of cut rates and combinations. The difference in cost on each ounce is too small to allow of an increased charge; they will still be 5 cents or 10 cents an ounce, as the case may be. The increased tax will come entirely out of his own pocket.

An average druggist, we will say, uses three barrels, or 140 gallons, of alcohol a year; the increased tax (not counting the distiller's charge for interest and profit) is 36 cents x 140, or \$50.40. Now, assuming the average income of druggists to be \$1,000 per year, this amounts to a tax of 5 per cent on his income.

So, while the individual whose good fortune it is to enjoy an income in excess of \$4,000 per year is taxed 2 per cent on the excess, the person whose income is less than \$4,000, if he is unfortunate enough to be a druggist, is taxed 5 per cent on his entire income, and there is no possible way of his shifting or evading this tax.

The distiller promptly raises his price, adds a profit and goes on rejoicing, as well he may, for he makes a fortune by adding the tax to existing stock on which he has paid only the old and lesser tax.

With the manufacturing druggist it is not quite so easy, I am sorry to say, to add the tax to his selling price, but eventually he succeeds in doing so.

The saloonist easily recoups himself, merely softens his spirits with a little more water.

The druggist will not and can not dilute

his tinctures, he cannot add to the price, he must pay Uncle Sam out of his own pocket.

This tax on the retail druggist is wrong. It is an absurdity.

It should be prevented.

Prompt, positive and decisive action by all druggists of all sections alone can overcome this threatened misfortune. By acting singly, and also collectively through their State and local associations, much good may be accomplished.

The increased revenue it is necessary to provide for in this bill, it seems to me, might be raised by an increase in the tax on beer, and not increase the tax on alcohol.

Beer at present is taxed but 92 1/2 cents per barrel of thirty-one gallons.

Increasing the tax to \$1.00 per barrel would increase the revenue \$3,664,317.

The proposed increase of tax on distilled spirits will add to the revenue but \$19,610,000.

Gain to the Government by increasing the tax on beer and leaving the alcohol tax as at present, \$14,944,517.

This shows that the proposed increase of tax on alcohol is unnecessary—any unnecessary tax is wrong.

An increased tax on beer would cripple or injure no business or industry.

To the brewer it is merely a question of specific gravity. If he is working, for instance, at 1.065, he brings the gravity down to 1.050, and the thing is done, the tax is paid, no increase of price to his customers, no one's profit disturbed, and the consumer is as well or better served than before.

For the benefit of the trade in general and the retail druggist in particular, this objectionable increase of the alcohol tax should not be made.

I have a printed petition gotten up in form suitable for presentation to Congress, that I will mail to any druggist wishing it, who, by obtaining signatures to the same and forwarding it to his Congressman, will do his share toward accomplishing a much desired result.

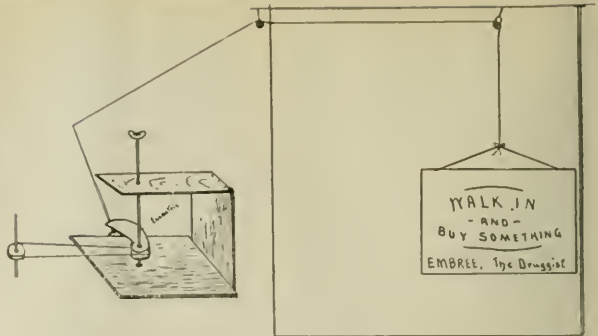
FREDERICK F. INGRAM,
Detroit, Mich.

SCHEMES FOR ADVERTISING.

Belton, Tex., April 18, 1893.

To the Editor:

I inclose you a sketch of a little device that I have been using for some time, and which I think is a clever little arrangement with which to stop passers-by in front of your store, and, possibly, lead them inside, where nine times out of ten they will spend some money with you. This device is nothing but an eccentric, so arranged in a wooden frame that when set in operation it moves a wooden rod back until it reaches the farthest point of the eccentric, when suddenly the rod is released and drops back, causing a placard out on the sidewalk (suspended above the sidewalk by a string connected with the rod worked by the eccentric) to drop down suddenly about 6 or 8 inches, and this is again very gradually drawn up and suddenly dropped as before. This operation repeats itself about five or six times every minute; of course, the larger the eccentric the fewer drops each minute, granted that your power has the same speed. I run this device with a small electric

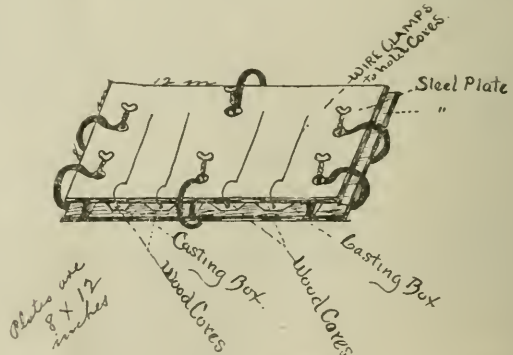


Embree's Eccentric.

motor, which cost me \$10 and which develops about 1-32-horse power. This same dynamo also runs a Ferris wheel 6 feet in diameter, and is fed by three batteries such as are used in any telegraph office, only they are larger, having about 6 pounds of sulphate of copper and a zinc block about 5 by 8 inches, and 1 inch thick, which is separated from the blue-stone by about 2 inches of sawdust. Cards can be changed daily, calling attention to any special article that you have just received. The larger the eccentric the greater will be the drop.

I also inclose you a rough sketch of the casting-box which I use in making my plates, or, I should say, cuts. (See pages 438-9, Era of May 1, Ed.) A chalk mixture is placed on the bottom steel plate and allowed to dry over a slow fire, when you are ready to do

fact: that I have never seen a stereotype or casting-box as used by regular houses in this line of business. However, my box serves by every purpose, and can be made at any foundry for from \$5 to \$10. It, of course, has to be made from steel, and the plate on which you do your engraving has to be perfectly smooth in order that your finished plates or cuts may make a good, clear impression. The wooden cores shown in the sketch are also my own idea, and serve the purpose, as you know, to reduce the amount (weight) of metal used. If any of my brother druggists wish to take up the work of doing their own advertising by the use of cuts as I do, I would suggest that they procure some good work on stereotyping and study it well, and they will have no trouble, as far as knowing how to do



Stereotyping Apparatus.

your engraving. When you have finished your engraving, melt your type metal, and after your casting-box has been well heated pour in your melted metal and you have your cuts, which have to be trimmed with a plane. They are now ready for the press; the black prints are written on cardboard with heavy ink, which leaves the lines raised, then cast as before. The stippled plates are done in the same manner—that is, on heavy cardboard, and cast as above stated. My casting-box, I imagine, is rather crude, from the fact that it was gotten up by myself, in the face of the

work; but they will have to burn a quantity of midnight oil if they do their own prescription work in addition to their own advertising work. Yours very truly,
A. J. EMBREE.

One of the important features of the International Medical Congress, lately held in Rome, was the exhibition of many of the products of manufacturers of pharmaceutical preparations. Among the latter was the well-known American firm of Wm. R. Warner & Co. of Philadelphia, who were the recipients of a silver medal awarded by the congress.

SAMPLE OF EFFECTIVE ADVERTISING.

To the Editor:

I have been greatly interested in the "samples of effective advertising" appearing in your columns. Let me give you a few ideas that have not yet appeared. I have used the illustrations that Jack Embree advocates, but with this added idea: At the beginning of the year I secured one-fourth column in our best local paper (weekly), and made arrangements to change each week. This is a great point. Educate the readers of the paper you advertise in to look for something new each week (if a weekly), and then have something in your space worth looking for. In my case I promised a present to each person who would cut out my advertisements and bring them in to me at the end of the year. The result was a surprise, and showed that more people were reading my "ad" than I thought.

BOWER & BARBER, DRUGGISTS.

Our Soda Fountain Is Open.

"All the world's a stage,
And men and women merely players;
They have their exits and their entrances,
And one man in his turn plays many parts,
His acts being seven ages."

"At first the infant," for whose benefit we constantly keep on hand Infant Powder, Puffs, Castoria, Paragoric, etc.

"And then the whining schoolboy," who wants Tablets, Pencils, Pens. We have them.

"And then the lover." Well, boys, we've been there. Come along, we know your wants and can supply them.

"Then a soldier." We keep a panacea for the "sea serpent" fever.

"Then the justice," whose busy life oft brings an aching head. Remember our Excelsior Headache Powders.

For the aged we have much that will relieve and rejuvenate.

"Last scene of all," * * * "Sans teeth, sans eyes, sans taste, sans everything." Yet we are the last and most faithful to minister to your wants.

Our Soda Fountain Is Open.

BOWER & BARBER,

3 E. Lake Street. Telephone, No. 31.

This year I have a new method. Instead of the illustrations I use a familiar quotation from some well-known author, join my advertisement to it, and again offer a present to each person who will bring in all my "ads" for the year and write the name of the author quoted on the ad. This is a winner. The school children have their teachers or parents

assist them. Older people of a literary turn of mind take pride in letting me know that they are keeping up with me; and, in fact, my "ads" in our local paper are eagerly looked for as soon as the paper reaches the subscribers. Why? Just because they are free from mold, dust and signs of laziness. Wake up, Brother Druggists, and change that stale old ad, or, for the sake of modern taste, cut it off. I inclose a sample, just to show you my style. The squib regarding the "sea serpent" is of local interest, but the ad. will suffice to give you the idea.

Yours truly,
R. T. BOWER, JR.

Petoskey, Mich., May 8, 1894.

LATEST FROM THE SEAT OF WAR.

Like one of the heroes of "Three Men in a Boat," who studied medicine alphabetically, beginning with diseases commencing with A and ending with Z, so the Senate of the United States, after a period of vocal activity extending over two months, seems to be floundering somewhere near the letter M. (to be exact in the matter of saying "where they are at" would entail too wearisome an investigation). With due apologies to our readers for mentioning a matter which everybody is tired of, we will say that the Senate Finance Committee has recommended the following rates on drugs and chemicals: Chloral hydrate, 25 cents per pound; ad valorem; chloroform, 25 cents per pound; coal tar colors or dyes, 25 cents per pound; collodion, 40 cents per pound; in sheets 50 cents per pound; in finished articles, 45 cents per pound; ad valorem; medicinal barks, berries, etc., 10 cents per pound; ad valorem; sulphuric ethers, 40 cents per pound; spirits nitrous ether, 25 cents per pound; fruit ethers, oils or essences, \$2 per pound; ethers not otherwise specified, \$1 per pound; dyewood extracts and decoctions, 10 cents per pound; ad valorem; gelatine glue, etc., 25 cents per pound; ad valorem; crude glycerine and refined glycerine, 1 and 3 cents per pound respectively; iodoform, \$1 per pound; extracts of licorice, 5 cents per pound; carbonate of magnesium, 3 cents per pound; calcined, 7 cents; Epsom salts, one-fifth of 1 cent; castor oil, 35 cents per gallon; cod liver oil, 20 cents per gallon; ad valorem; flaxseed and poppyseed oils, 20 cents per gallon; hemp and rape seed oil, 10 cents per gallon; peppermint oil, 25 cents per gallon; ad valorem; aqueous extract and tinctures of opium, 20 cents per gallon; ad valorem; opium prepared for smoking, \$5 per pound; crude opium, free; phosphorus, 15 cents per pound; chromate and bichromate of potash, 25 cents per gallon; ad valorem; hydrochlorate of potash, 25 cents per pound; refined saltpeter, 1-2 cent per pound; prussiate of potash, red or yellow, 25 cents per gallon. ad valorem. These rates are now being debated, and as the matter will have to be referred back to the House, those prophetic individuals who can usually tell what Congress is going to do are now keeping very quiet.

The Wood Glass Company has succeeded the Wood & Fox Company. The old firm was located at 511 Kirk Block, Syracuse, but Arthur S. Fox has withdrawn, and the other partner, Clarence W. Wood, has assumed all liabilities and is removing its office to 26 North Salina street.

What . . .

Congress

Has Done.

— WRITTEN BY —

GLAZEBROOK & Co.

Prescription
Druggists,

Seventh and Oak Streets,

TERRE HAUTE, - - - IND.

A JOKE ON CONGRESS.

Every once in a while some bright genius brings forth a piece of work which makes the world revolve a bit easier by supplying that great anti-friction element—a hearty laugh. The above is an instance of this kind, and is a fac simile of the front cover of a little book now going the rounds, which the strict partisan of the dominant party will regard with pleasurable anticipation, while his opponents will, at first glance, assume that it is a work containing spread-eagle statements, which it is their duty as party men to strenuously controvert. They will both be badly fooled, and will laugh and poke each other in the ribs when the true situation dawns upon them. A clear-store Indian would probably smile could he open the book and find that it contains—nothing—except a few blank pages. The victim of the joke, after trying it upon all his friends with gratifying success, preserves the unique little book, and uses it for a memorandum. Glazebrook & Co. are certainly to be congratulated upon their employment of this bright "hit," and as the back cover of the book is utilized to display a general advertisement of the firm's business, the idea is entitled to a prominent position in The Era's collection of effective advertising.

THE BEAUTY OF NIAGARA.

Can never be described, and it has never been pictured so adequately and satisfactorily as in the splendid portfolio just issued by the Michigan Central, "The Niagara Falls Route." It contains fifteen large plates from the very best instantaneous photographs, which cannot be bought for as many dollars. All these will be sent for 10 cents by Frank J. Bramhall, Advtg. Agent, Michigan Central, 402 Monadnock Block, Chicago.

TRADE NOTES.

The Buffalo College of Pharmacy offers special advantages to those who desire a practical pharmaceutical education by giving one-half of the instruction in laboratory work. Illustrated announcing men will be sent upon application to John H. Gray, Ph. G., secretary, 216 Seventh street, Buffalo, N. Y.

The letter "M" is probably as easy to write as any in the alphabet, and the drawing of a diamond to surround it is also an easy matter. This simple procedure, in connection with orders to your jobber, will bring you the high grade cork manufactured by the E. W. McCready Cork Co., 47 Illinois street, Chicago. Try it.

Menn & Stubenrauch, manufacturing pharmacists, New York, have given a good deal of attention to the manufacture of those fluid extracts intended for use in making syrups, and they invite the trade to give their specially prepared Will Cherry, Ginger Soluble, Tolu, Sarsaparilla Compound, Sweet Orange Peel, Ipecac, etc., a fair trial, as they are convinced that they will give the most careful dispenser perfect satisfaction.

Repeated chemical and clinical tests seem to fully justify the Oakland Chemical Co. in offering their O. C. Peroxide of Hydrogen as a compound devoid of irritating qualities, non-acid, stable at all temperatures, and possessing a definite antiseptic and germicidal action. The use of this important product in sanitary affairs is on the increase, and the manufacturers of "O. C." respectfully ask for a comparison of their brand with others upon the market.

French manufacturers are noted for the care which they use in selecting the best raw materials in the manufacture of perfumes, which accounts for the high favor with which Pinaud's goods are regarded by the lovers of fine odors. The druggist who is in doubt as to the prospect for selling high grade perfumes should send for samples to Ed Pinaud's importation office, 42 East 14th street, New York, and learn why it is that so many willingly pay good prices for goods of fine quality.

Attention is called to the advertisement on another page of Dr. Mason of Chatham, N. Y., who conducts a sanitarium at that place for the treatment of cancer, tumors and blood diseases. The doctor claims that his treatment is purely vegetable, no knife or plaster being used. His medicine is sold by many druggists and proves quite remunerative to the dealer. Druggists who will send him the names of patients will have the remedies furnished through their stores. Write for particulars as to prices, etc.

Among the things which the druggist may safely count upon is the demand for preparations for the face, hands, skin and complexion during the Summer season. The "Summer" girl will soon be inquiring for such things, and she is quite likely to want Hind's Honey and Almond Cream. If you are acquainted with the preparation note the invitation of the manufacturer, A. S. Hinds, Portland, Me., to send for his special offer. If you are not acquainted with it, send for free sample, and judge of its selling qualities.

The saving of time in the shipping department is an important item with any firm which does a large business. This saving often means a distinct advantage over slower competitors. Barlow Brothers of Grand Rapids, Mich., manufacture patent manifold shipping blanks with effect a decided economy in that direction, and every shipper who is on the lookout for improvements in his service should write for particulars to the manufacturers.

With twenty-five sizes and kinds of ice cream cabinets to choose from, there should be no difficulty in making a choice of an article which is now recognized as a necessity to the dealer who dispenses ice cream at his soda fountain. The E. T. Burrows Co., Portland, Me., show illustrations of several cabinets in their advertisement in this issue, but they have a handsome catalogue, giving full description of all their goods, which they send upon application. Write them about it and mention The Era.

A glance at the personnel of the faculty of the Philadelphia College of Pharmacy will convince the seeker after a pharmaceutical education that his studies will be guided by men who are among the foremost in their profession, and an investigation of the facilities which the college possesses for practical instruction will further convince him of the advantages to be gained by pursuing his studies at this old and reliable institution. Write for announcement to Thomas S. Wiegand, 145 North 10th street, Philadelphia.

If there is any one who should set the example and advertise the fact of his using pure water it is the retail druggist. He should furnish an object lesson for the public to imitate. If he dispenses soda water, he should apprise his customers of the fact that all the ingredients composing the beverage, including the water, are absolutely pure. One of the means for attaining this result are set forth in a circular which the McConnell Filter Company, Buffalo, N. Y., will send upon application. Send for it and investigate their germ-proof filter.

The peroxide of hydrogen, manufactured by Larkin & Scheffer, St. Louis, Mo., is claimed to be an "ideally perfect product," and in support of such claim they call attention to a series of comparative tests which have been made of the goods of several manufacturers. The "L. & S." product shows a strength of 11-12 volumes—permanenate test; requires but 3-1.2 cc. standard solution of ammonia to neutralize 1 litre, and shows no trace of earthy salts. When you want a product which conforms to the standard of the U. S. P. 1890, specify "Larkin & Scheffer."

There is nothing like being seasonable, and the Cudahy Pharmaceutical Company of South Omaha, Neb., will assist every druggist in being in season with a new preparation for soda fountain use, "Lime Juice and Pepsin," prominently displayed, will bring the crowd to your fountain. Cudahy's Wine and Beef Peptone is another "hot weather" seller which is going to become well acquainted with the retail drug store this Summer. See advertisement of the Cudahy Company in this issue, and send for samples and prices on these two preparations.

W. Baedigen & Sons Co. of Rochester, N. Y., have a specialty which is well worth the investigation of the drug trade. It seems a very simple one when it is known that it is in the line of paper boxes, but there is a great difference in boxes—that is, between common ones and fine ones. This firm makes the latter kind, and solicit correspondence from those who really want fine goods.

If you are looking for any of the leading French and English pharmaceutical specialties you will probably find them by inspecting the list handled by E. Fougera & Co., 26 to 30 North William street, New York. They handle a very extensive line of such preparations, and will be pleased to answer any inquiries which the trade may make regarding them, and furnish advertising matter descriptive of any particular preparation in which you may be interested.

As the selling price of nearly everything is now regulated by competition, the only avenue to wealth seems to be the one in which economy of manufacture can be successfully practiced. The only profit lies in lowering the cost of production. The Merz Capsule Co. of Detroit, have something right in this line for the retail druggist. By using their empty elastic capsules they claim that a saving of 50 to 100 per cent. can be effected. Old method prices can still be obtained, but cost of production can be cut in two. Better investigate this.

Duroy & Haines of Sandusky, Ohio, show in their advertisement on page 32 an illustration of the extensive wine cellars and plant where the genuine Duroy wines are made. They ask the trade to see that all wines purporting to be "Duroy" are shipped from Sandusky, Ohio. The only parties authorized to sell these wines are Morrison, Plummer & Co. of Chicago, and the force of seven travelers employed by the manufacturers. Send for samples, which will be sent by express free of charge, and compare them with any and all wines sold.



Attention is directed to the advertisement of J. C. Kenyon, Owego, N. Y., in this issue of The Era, in which he makes a special offer to introduce his Golden Tobacco Habit Cure to the retail drug trade. The preparation retails for 25 cents, and on orders for three dozen at \$1.50 per dozen, one dozen will be given free, the transaction giving a net return of \$7.50. The goods are put up in easel boxes for counter display, and are quite attractive.

The suit of Dr. Amick against the St. Louis Clinique and Faculty of the College of Physicians and Surgeons, of St. Louis has been decided in favor of the plaintiff.—*Am. Med. Journal.*

The dissemination of diseases is a subject about which there has always been, and still is, much obscurity, but scientists and physicians are becoming more and more agreed upon the probability that impure drinking water is an important factor. An excellent means of combating this possibility is furnished in the water distilling apparatus manufactured by the James Curran Mfg. Co., 313 West 36th st., New York. By its use druggists, physicians and families can supply themselves with pure water, and be sure that they are getting a healthful article. Send for descriptive pamphlet.

"Compound Extract Beef, Sarsaparilla and Celery" sounds like a winning name, does it not? Preparations of beef, sarsaparilla and celery are very popular with the public, and when a druggist has a call for any of them he can supply the demand with the above mentioned preparation. It is put up by French, Cave & Co., Philadelphia, with buyer's address, and the retailer can make money by retailing it at either 50 cents or \$1 per bottle. It is just the thing to fight cut rates. Send your label for specimen wrappers, and note prices on the preparation in an advertisement in this issue.

Now that the soda-water season is fairly open, the enterprising dealer will also pay some attention to those goods which share popularity with Summer beverages. Among these is fine confectionery, and the latter is a synonym for Pomona Fruit Juice Tablets, manufactured by Duquette & Co., Council Bluffs, Iowa. These goods are put up in elegant shape, packed in four-pound, net-weight, square, flint-glass bottles, with large mouth and ground glass stoppers. The goods attract customers. Write for prices on case lots, assorted flavors.

It will be of interest to the drug trade to know that H. B. St. Clair, so well known as the representative of Beach & Clawridge and the I. Calvin Shafer Co., has branched out into business for himself in a line of specialties in fine package candies, gotten up especially for fine trade. His packages are decided novelties, and their attractiveness and fine quality will assure their sale. These are just the goods your customers will want. Write H. B. St. Clair, 78-80 Cortlandt street, New York, for prices, and be sure to ask about "Royal Butter Scotch," retailing in five-cent packages.

The possibilities in the way of colors at the command of the Low Art Tile Company, 92 Broadway, Chelsea, Mass., are so great in the construction of their soda water apparatus that the druggist who is at all artistic can, by taking advantage of the opportunities offered, fit up his place of business with an apparatus which will be in harmony with the finest schemes for general interior decoration. The expense for such a result is no greater than that involved in purchase of any other good apparatus, and as a means of pleasing customers the Low fountains are hard to excel.

The Rosshardt & Wilson Company, Philadelphia, manufacture a very fine line of petroleum products especially suited to the needs of the retail drug trade. Their line of manufacture includes "Lucilline," a pure petroleum jelly, put up in handsomely decorated tin cans; glycoline, petrolatum oil, sewing machine, mineral, castor and fine lubricating oils. These goods are handled by all the leading jobbers of the United States, Canada and England, and those of the trade who desire a fine line of such goods will be furnished full information upon application to the manufacturers.

Shafer's Standard Fruit Juices have three points in the way of economy to recommend them. First is the quality. They are warranted pure and to retain their original flavor and color in any climate. Second, the convenience attending their use, as they need no boiling with sugar, but simply admixture with syrup in a cold state in the proportion of one part of juice to seven or ten parts of syrup, according to fullness of flavor desired. Third, their prices, \$9 per case of one dozen quart champagne bottles, or \$3 per gallon in bulk. They also put up the juices in 5 and 10 gallon kegs, half barrels and barrels, as desired. All jobbers sell them.

The possibilities which surround the future employment of aluminum in the mechanical arts are almost unlimited, and many are the suggestions for its application. Perhaps one of the most unique uses which has been brought to the notice of the public is that of a comb made of the "metal of the future." The idea strikes the public at once, and there is no trouble in selling them, as they never break or tarnish and are nearly as light as the ordinary rubber comb. Write to the sole agents, William L. Strauss & Co., 27 Warren street, New York, for prices and particulars, mentioning *The Era*.

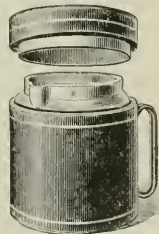
Nearly all druggists handle the same goods, but, in spite of this fact, there is a great difference in stores, and in the volume of business done by them. One of the great secrets for doing a good Summer business is keeping a store cool, so that it is a pleasure for customers to do their trading and be comfortable at the same time. Such a store soon becomes popular with the masses. The druggist who reads the advertisement of D. H. Bates & Bro., Dayton, Ohio, in this issue will discover a means of drawing trade by making his patrons comfortable. Write for particulars regarding Bates' electric ceiling fans.

The Hart Manufacturing Company has just placed in the drug store of L. Ambrecht, corner of West Lake and Lincoln streets, Chicago, one of their new Mexican onyx tilting can soda water apparatus, Hoff's patent. The apparatus is the talk of the town, and is pronounced by many the finest soda fountain in the city. The advantages of the new apparatus are that the cans are arranged so as to come in direct contact with the ice, and can be tilted forward to be filled with syrups without opening the cover of the ice chamber. The factory is running full time in order to supply the demand.

Have you seen the Boston Petty Ledger manufactured by A. G. Moore, 47-49 Court street, Boston, Mass.? They have sold over 25,000 of them, but if you are not one of the purchasers of a portion of this large number, sample pages and descriptive circular will be sent you upon application. See advertisement in this issue.

Plummer & Ward of Chicago are putting upon the market "Breath of Roses." This is in tablet form, put up in small oval screw-cap bottles, convenient to carry in the pocket, and retails at 15 cents per bottle. The trade price is \$1 per dozen, and this seems to afford quite a satisfactory profit to dealers, judging from their willingness to handle the goods. Unlike other remedies for offensive breath, they are swallowed like any medicated tablet, instead of dissolving in the mouth. They correct disorders of the stomach, and are said to be positively harmless in their nature.

Last season was a great one for Bromo-Seltzer. The extensive advertising which was done for it at the World's Fair has made it known all over the country, and the retail drug trade can look forward with considerable certainty to the demand which the Summer months will bring. The offer of the Emerson Drug Co., Baltimore, Md., on this preparation is still open. On all orders for Bromo-Seltzer amounting to \$20 the retailer receives one pound free and a discount of 10 per cent. Attractive advertising, including popular selections of sheet music and memorandum books, is furnished free. Write for particulars, and mention *the Era*.



Whitall, Tatum & Co. have recently brought out an article which the retail drug trade can handle with advantage and profit. It is the Acme Water Cooler, and the above illustration shows what it looks like. It consists of a glass jar, capacity one quart, inclosed within a double-walled can, so constructed as to be a non-conductor of heat. Ice placed in the jar will remain unmelting for many hours, and water can be kept perfectly cool all night. Owing to its non-conducting quality the can is also well adapted for retaining the heat of broth, gruel or other food placed in the jar when hot. The can is lined with zinc, the outside is handsomely japanned, and it is furnished with a folding handle, so that liquid may be readily poured out without removing the jar from the can. These coolers are especially valuable for sick-room use, and druggists can sell lots of them the coming Summer if they will take the trouble to call their customers' attention to them. Price \$15 per dozen, with discount to the trade of 50 per cent.

Many persons who are using Wilson's Common Sense Ear Drums have spoken favorably of them as a means of relieving deafness, and druggists are finding them a profitable article to keep in stock. Write for descriptive pamphlet to the Wilson Ear Drum Co., Louisville, Ky.

Many druggists can remember the thriving business they did with hot water bottles last Winter, and will naturally think the season for pushing such goods is past. This is not the case, however, with the Penniston Food Warmer, manufactured by the Davol Rubber Co., Providence, R. I. This article is a combined hot water bag and food warmer, but it can be used in a similar manner during the Summer by filling it with salted ice-water, thus keeping food cool and sweet for a long time. Write for prices on this and mention The Era. You can sell hot water bottles this Summer if you get the right kind and tell people how to use them.

The J. S. Carroll Manufacturing Company, 93 Locust st., Philadelphia, Pa., are sending out to the trade a very neat and attractive catalogue of soda water apparatus. This new firm admit that they are not the oldest makers of soda fountains, but the latest and newest and claim that the construction of their fountains embraces all the points of the latter character. Among the points to which they call attention are their new system for removing coolers, silver-plate lids for wall apparatus, and improved draught arms. This firm also have some prices which will interest those who are figuring upon a change or a new soda fountain. Write for catalogue and mention The Era.

Medicated chewing gums are becoming very popular with the public—and why shouldn't they? They certainly furnish a delightful means of taking medicine, and deserve to be popular. The J. Hungerford Smith Co., of Rochester, N. Y., put up gums of this sort—one for indigestion and dyspepsia and the other for coughs, colds and hoarseness. For a limited time these gums will be packed in a patented, automatic, alarm box for counter display. This serves as a means of attracting attention to the goods, and one trial usually insures a continued demand. Write for prices on these goods. It will not take long for your customers to become interested in medicated chewing gums, if you give them a chance.

James W. Tufts, 33 Bowker street, Boston, argues that if it pays to exchange an old soda fountain for a new one (and nearly every one admits that it does) the time for such an exchange is when business is inclined to be a little dull and trade in soda water needs just the kind of stimulation which a new and attractive apparatus can give. The plea that a druggist cannot go to the expense of making a change when business is dull is met by Mr. Tufts' announcement that his prices have been reduced to fit hard times. At any rate, write him for prices, a free sample of his raspberry juice, his new syrup book and a copy of "How to Make a Soda Fountain Pay."

If you will let Tilden & Co., manufacturing pharmacists, New Lebanon, N. Y., know that you are interested in their products, they will soon show their interest in your success by interesting the physicians in their goods which they sell through the retail pharmacist. They have an extensive line of literature relating to their preparations and business methods, and if you will send them your name they will be pleased to keep you supplied.

People now go to drug stores for a great variety of articles, and there is no reason why they should not go to the same place for many of the attractive and novel articles which Woods, Sherwood & Co. of Lowell, Mass., put upon the market. Write for this firm's catalogue and see how many readily salable articles they make which can be appropriately and profitably handled by the drug trade.

Have you a complete line of the Lanoline Toilet Specialties? On account of the favorable position which Lanoline occupies in the favor of the medical profession, toilet preparations in which this valuable agent is incorporated are of the kind which the druggist can conscientiously recommend. Lanoline Cream or Salve and Lanoline Cold Cream are both emollient, bland and soothing, the former being an excellent preparation for sunburn, tan, and for use "after shaving." Lanoline Soap, being made from a natural skin fat, is an especial favorite with the dermatologist. Lanoline Pomade is said to be one of the best of applications for the hair, and is an excellent remedy for dandruff. Write for descriptive circular and prices to Schulze-Berge & Kaechl, 79 Murray street, New York.

The Crown Perfumery Co., 17 New Bond street, and 112 and 114 Fore street, London, England, announce that their business, which was interrupted by fire, has been completely re-established, and that they are now erecting a large factory in London, which will answer all the requirements of their growing business. They also state that changes have been made in the management of their American branch, and that all orders and correspondence should in the future, in every case, be addressed to the depot of importation of the Crown Perfumery Co., 25 Elm street, New Haven, Conn. A full line of samples, including the pyramids and showcases, will be on view at their New York office, 190 Fifth avenue.

The many friends of Mr. G. S. Woolman, so many years engaged in the scientific instrument business at 116 Fulton street, New York, will be interested to learn of a very important change in his affairs. The firm of Queen & Co. of Philadelphia, with whom he was connected earlier in life, having found it necessary, owing to the great volume of their business in the vicinity of New York, to establish a branch there, have purchased Mr. Woolman's entire business and have secured his services as their New York manager. Mr. O. T. Louis, formerly in charge of resistance standardization in Queen & Co.'s laboratory at Ardmore has been detached from the Philadelphia staff of the electrical department and stationed at the New York office.

It is said that the basket in which the freedom of the city of London was presented to Jenner in 1803 was recently purchased at a pawnbroker's sale of unredeemed pledges in that city.

"Silent Salesman" has been found so appropriate for the clear case manufactured by John Phillips & Co., Detroit, Mich., that the firm has had the name trade-marked. The illustration on page 33 shows what it looks like. The case is fitted with molisters in the bottom, also in shelf in centre. The top part is used for opened goods, while the bottom is utilized as a storage cabinet. The case is made in various kinds of wood (oak being the prevailing style), and the glass is double-thick French sheet or polished plate. The lower doors slide horizontally and the upper doors drop on spring hinges, which are set four inches above the shelf, so as not to interfere with the box lids. When desired, beveled plate glass, flush with molding, is furnished for top of case. Write for prices and mention The Era.

Lehn & Fink have added a new flavor to their line of "Concentrated Fruit Juices:" Wild Cherry Juice, designed especially for dispensing "Cherry Phosphate" at the soda fountain.

Directions: Mix, col. 1 part Wild Cherry Juice, 8 parts simple (or rock candy) syrup, and 1 part acid phosphate; dispense a liberal amount with soda water, and the result will be a delicious "special flavor" beverage.

A judicious addition of "L. & F. Soda Foam" to the syrup made with any fruit juice will greatly enhance the flavor and appearance of the dispensed beverages.

Lehn & Fink's Dutch Cocoa has been in the market several years, and without advertising has found favor and increasing large sales. It is powdered and soluble; for use in syrup at the soda fountain, and likewise for home use as a breakfast cocoa. It is an absolutely pure powdered cocoa, free from cocoa butter, and containing no sugar, flour, starch or other foreign ingredients. Manufactured especially for and imported from Holland solely by Lehn & Fink. One teaspoonful will make a delicious cup of chocolate; one-half pound will make a gallon of soda-water syrup, yielding an unsurpassably rich and delicious beverage with soda water. Put up in five-pound cans at 50 cents per pound. No matter what sort of cocoa or chocolate you have been using heretofore try a can of L. & F. Dutch Cocoa. Satisfaction guaranteed. And you will introduce it in your household, too, without fail.

IN A THOUSAND DIFFERENT WAYS.

The druggist will find the adjustable type printing outfit offered by Wm. H. Dietz, 117 Dearborn street, Chicago, a great help for advertising and printing purposes. A druggist often wants a rubber stamp for immediate use for filling in blanks, printing odd prescription labels, stamping price tickets, etc. As a special offer, Mr. Dietz includes a dating stamp, with abbreviated words, good for six years. A memorandum stamped with the date in colored ink is a great aid in tracing back orders, and besides the system is valuable. See advertisement on page 13.

A customer of the Springer Torsion Balance Company writes them from Central Falls, R. I., as follows: "I bought one of your prescription scales (style 269) recently, and am very much pleased with the same. It is a pleasure to use such scales, and it seems to me a few remarks may not be amiss. The drug journals and druggists give too little time to a matter that needs the most careful attention. I mean the matter of scales. Being a practical and observant druggist, I have often wondered why so many druggists persisted in the use of scales that were not sufficiently accurate or fine to weigh minute quantities of drugs. The majority appear to have forgotten that exactness is essential to success in our line, consequently they have selected poor scales, so that when called upon to weigh small quantities they are placed in a queer position. They have either to trust to luck as to accuracy, thereby running the risk of poisoning, or to give themselves the benefit of the doubt, and weigh short, thus deceiving the doctor who prescribed. Either alternative is pernicious. If too much is given and death results the druggist's reputation is gone. If too little is given, the intended effect is not produced, the patient may die, and the doctor lose part of his reputation. For instance, a doctor attending a person suffering from overindulgence in alcohol thinks that a certain amount of strychnine is necessary to sustain his patient. He prescribes accordingly. The prescription is brought to the owner of the poor scales. Unable to weigh exactly, the druggist, anxious to be on the safe side, favors himself by weighing short. The result is that the amount intended is not given, the doctor is deceived, the patient receives not enough to sustain him and dies. Who is to blame? Not the doctor, but the druggist who owns the poor scales."

JUST THE THING FOR THE SUMMER TRADE

All question as to the probable success of a British invasion has been settled at last. A landing has already been effected and the invading forces, moving under banners inscribed "Kops Cheer" and "Kops Extra," are having an easy time of it occupying our country, which, strange to say, is displaying no hostility whatever. Kops Cheer and Extra are the ideal temperance drinks of the day, and they have a record across the pond of over 5,500,000 bottles sold in London in four months. Both are absolutely non-intoxicating, the first named closely resembling Bass' ale, and the latter would puzzle a Dutch judge to distinguish it from porter or stout. These beverages are made with pure Pulham (England) artesian well water, to which is added the finest and most wholesome ingredients, including the best hops, thus producing drinks which are excellent thirst quenchers, appetizers, nerve tonics and remedies for indigestion. These goods can be sold anywhere without license. The drug trade can work up a profitable trade with them, unless it waits until other lines of business take the initiative. Write for further information, terms, etc., to the Depot and Bottling Stores for United States of the Kops Company, 406 West 53d street, New York, and mention the Era.

There is certainly a chance to save money by buying oil of tar at the prices quoted by Hansen & Smith, Wilmington, N. C., in their advertisement in this issue. They put it up especially for the drug trade in iron-hopped barrels, and will be pleased to correspond with druggists who desire anything in the way of superior pine tar products.

The eleventh edition of Gray's Pharmaceutical Quiz Compend, published by Gray & Bryan, Chicago, has just been issued. The work has been considerably enlarged, and its revision has put it upon the basis of the U. S. P., 1890. Students in search of a quiz compend will find Gray's a valuable and up-to-date publication. Price, \$1.50.

Dr. H. L. Bowker & Co., 295 and 297 Franklin st., Boston, publish a large catalogue devoted to the firm's famous soda water extracts, beers, ginger ale and fruit flavors. They want every druggist who has a soda fountain to have a copy, and become acquainted with this firm's products and their methods of doing business. Send for a copy.

The William S. Merrell Chemical Co. of Cincinnati, O., believe in bringing their preparations to the notice of the medical profession through the pharmacist, and they offer attractive inducements to the enterprising druggist who will co-operate with them in bringing about this result. Write them for particulars and supply of their printed matter.

The prevalent reports upon the adulteration of olive oil make the guarantee upon "Lautier's," referred to in the advertisement of Geo. Luenders & Co., 218 Pearl street, New York, quite interesting to the drug trade. The statement that no one has ever seen Lautier's oil rancid, no matter whether four years old or left open for a long time, is certainly a strong recommendation in favor of this brand.

Medicinal and commercial carbolic acid are specialties with the firm of Charles Lowe & Co. of Manchester, England, and they are prepared to furnish at all times, through their American wholesale agents, Schoellkopf, Hartford & MacLagan, or Merck & Co., of New York, any required quantity at the lowest possible prices. Write to the above named agents for quotations.

Most of the pharmaceutical colleges begin their terms in the Fall of the year, but the coming Summer will be the proper time for the student to make up his mind which school to attend. The catalogue of the Illinois College of Pharmacy will give much valuable information on this point, and will be sent to any one applying to Oscar Oldberg, Dean, 2121 Dearborn street, Chicago.

Write to the Star and Crescent Mills Co., Philadelphia, for figures on their bath outfits. These consist of several requisites, such as robe, slippers, mitts, etc., put up in a neat box, and are just the thing to attract the attention of the better class of customers. You already sell soaps, toilet waters, sea salt, bath brushes, etc., and why not sell everything for bathing purposes except the water?

MICHIGAN UNIVERSITY NOTES.

Caps and gowns have made their appearance on the campus, and the honor belongs to the senior Lits. The professional students, in spite of their demonstrations to the contrary, cannot refrain from casting admiring glances at them.

The Journal Club, which was organized at the beginning of this semester under the direction of Prof. P. C. Freer, is presenting some interesting papers, among them "The Synthetic Methods for Preparing Citric, Tri-carballic and Aconitic Acids," by Miss N. F. Goldthwaite; "The Preparation and Structure of Thio-sulphuric Acid," by R. R. Putnam, and a "Digest of Moissan's Work on Fluorine and Fluorides in General," by Richard Fischer. The Journal Club is composed chiefly of professors, instructors in chemistry and graduate students, but no one is excluded from the meetings. They meet on Thursday night of each week. One complete paper is presented at each meeting, followed by a general discussion.

Goodyear & Co. recently exhibited an interesting show window. For a centrepiece was a skull and crossbones, and around this was arranged a handsome display of poisons. Besides the usual poisons, morphine, strychnine, arsenic, etc., tobacco, cigars and cigarettes, pipes, whiskies and playing cards were included.

The junior pharmacy students are busily at work on their third and last set of pharmaceutical preparations. This set comprises some of the more difficult operations in practical pharmacy, requiring patience, perseverance, skill and, above all, accuracy in manipulation to insure good results. Among the preparations receiving their attention at present are ethylnitrite, monobromated camphor and phosphoric acid, the object being to give them practice in handling corrosive and inflammable substances. The students are required to make all their preparations conform with the U. S. P. strength and tests of purity before submitting them to the final inspection.

The seniors are receiving special drill daily under the personal supervision of Prof. A. B. Stevens in compounding prescriptions. These prescriptions are difficult ones chosen from a large collection of actual physicians' prescriptions, and are selected with special reference toward exercising their knowledge of materia medica, compatibility and posology, and to give them practice in compounding so as to produce the most elegant appearing preparation. All the material used in dispensing which can be manufactured advantageously on a small scale is made by the senior and junior students. A number of the juniors every year donate their preparations to the dispensing department.

As a tonic beverage Malto occupies a preferred position in the estimation of the patrons of the soda fountain. This is its record in the past, and it is being pushed by the manufacturers more than ever for the coming season. It is furnished in the form of a syrup, and is also carbonated. Send for samples of the beautiful advertising matter which the Malto Manufacturing Company of Cleveland, Ohio, is sending out to boom Malto.

THE SOUTH.

Frank C. Garner, Gainesville, Tex., has made an assignment.

Andrew Van Antwerp has opened a new store at Mobile, Ala.

R. E. Harris of San Antonio, Tex., has opened a store in Topeka, Kan.

D. C. Curtis, the Decatur street druggist, Atlanta, was married recently.

Cunningham & Gatchell are successors to Cunningham & Blakely, Selma, Ala.

Weimar, Klein & Co. have purchased the Avenue Drug Store, Hot Springs, Ark. Volgt Brothers, Chattanooga, Tenn., are adding a nice laboratory to their store.

Wilson & Stern, doing a druggists' sundries business in New Orleans, have failed.

The Weimar Drug Co. of Russellville, Ark., have filed articles of incorporation, the capital stock to be \$100,000.

John L. Day, Gadsden, Ala., has retired from the drug business and gone on a stock farm near Selma, Ala.

W. P. Smith, Atlanta, has purchased the stock and fixtures of W. W. Webbs, and will continue the business at the old stand.

J. C. Price, Galveston, Tex., has purchased the stock of Clark's pharmacy, Yoakum, Tex., and will remove it to Galveston.

Sol. Cronhelm, Atlanta, attended the meeting of the Grand Lodge, Knights of Pythias at Columbus, Ga., as a delegate from his lodge.

Ben. Clarke, formerly in the employ of H. J. Lamar & Sons, Macon, Ga., has accepted the position of manager of Jacob's pharmacy branch drug store, Atlanta.

W. A. Graham has filed suit for \$5,000 damages against the Lamar-Tankin Drug Co., Atlanta, for violation of contract in dividing proceeds from the sale of Graham's Specific.

American proprietary preparations are enjoying a great sale in India. Several of our most important firms have established agencies in Calcutta and Bombay, among which is Mellin's Food Company for India.

Is your shelfware becoming rather shabby from a want of attractive labels? If it is, your attention is directed to the advertisement in this issue of Dr. R. R. Lansing, Detroit, Mich., who will furnish you his patent glassine labels, to match anything you have in the way of glass labels. Send for samples and catalogue, mentioning The Era.

Charles R. Doane, 22 Meserole street, Brooklyn, N. Y., makes self-litiz powders by machinery, and as a result of the employment of such means is enabled to guarantee the accuracy of the goods he puts upon the market. It also enables him to make extremely favorable prices. Samples of his powders will be cheerfully furnished upon application.

In commenting upon the loud tones and intricate designs of the wall papers of the season, an authority upon such subjects says: "A plain wall, with a good top frieze, forming a strong note of color, makes a strong room and gives opportunities for hanging etchings, plaster casts, sketches, etc." This is evidently a plea for a return to plain walls, hung with cartridge papers, etc.

PATENTS, TRADE-MARKS AND DESIGNS.

From U. S. Patent Office Gazette.

PATENTS.

- 519,220 Luminous Paint.—Carl Kraut, Washington, D. C.
- 519,386—Process of Manufacturing Pyroxylin Solvents and Their Products.—Gustave Zeller, Rahway, N. J.
- 519,387—Process of Manufacturing Pyroxylin Solvents and Their Products.—Gustave Zeller, Rahway, N. J.
- 519,388—Process of Manufacturing Pyroxylin Solvents and Their Products.—Gustave Zeller, Rahway, N. J.
- 519,428—Process of Purifying Ammonia.—Ernest Solvay, Brussels, Belgium, assignor to the Solvay Process Co., Syracuse, N. Y.
- 519,429—Apparatus for Causticizing Ammonia Liqueur.—Ernest Solvay, Brussels, Belgium, assignor to the Solvay Process Co., Syracuse, N. Y.
- 519,442—Thermometer.—Michael Byrne, New York, N. Y.
- 519,445—Process of Making Chlorine.—William Donald, Saltcoats, Scotland.
- 519,446—Process of Making Chlorine.—William Donald, Saltcoats, Scotland.
- 519,458—Blue Dye.—Karl Krekeler and Paul Kraus, Elberfeld, Germany, assignors to the Farbenfabriken Vormals, Fr. Bayer & Co., same place.
- 519,513—Apparatus for Distributing Carbonic Acid.—Emil Reuff, New York, N. Y.
- 519,514—Apparatus for Charging Liquids with Gas.—Emil Reuff, New York, N. Y.
- 519,710—Method of and Apparatus for Electrochemical Decomposition.—Henry Carmichael, Malden, Mass.
- 519,989—Petroleum Sulfo-Acid.—Hans A. Fresch, Cleveland, Ohio.
- 519,990—Petroleum Sulfo-Acid.—Hans A. Fresch, Cleveland, Ohio.
- 519,991—Brown Petroleum Nitro-Dye.—Hans A. Fresch, Cleveland, Ohio.
- 519,992—Petroleum Dye.—Hans A. Fresch, Cleveland, Ohio.
- 519,014—Syringe.—Gustav Beck, Berne, Switzerland.
- 519,006—Brown Petroleum Dye.—Hans A. Fresch, Cleveland, Ohio.
- 519,057—Distilling Apparatus.—Alphonse Lavy, Paris, France.
- 519,130—Apparatus for Charging Liquids with Carbonic Acid.—Jacob F. Theurer, Milwaukee, Wis.
- 519,229—Blue Alizarin Dye.—Rene Mannheim Bohn, Ludwigshafen-on-the-Rhine.
- 519,433—Soda Fountain.—Thomas Riley, Boston, Mass.
- 519,434—Soda Fountain.—Thomas Riley, Boston, Mass.
- 519,522—Polyazo Yellow Dye.—Johann J. Brack, Basle, Switzerland.
- 519,523—Polyazo Yellowish Dye.—Johann J. Brack, Basle, Switzerland.
- 519,627—Apparatus for Making Oxygen.—Ferdinand Fanta, London, England.

Patents Expired May 1st.

- 190,122—Composition Paravasselline Paste.—B. L. Budd, Fairfield, Ct.
- 190,125—Composition Emery Paste.—B. L. Budd, Fairfield, Ct.
- 190,126—Composition Rouge Paste.—B. L. Budd, Fairfield, Ct.

Patents Expired July 8th.

- 190,395—Soda Water Apparatus.—Fred W. Wiesebrock, Brooklyn, N. Y.
- 190,396—Automatic Carbonic Acid Gas Generators.—F. W. Wiesebrock, Brooklyn, N. Y.
- 190,533—Devices for Preventing the Accumulation of Frost and Steam upon Store Windows.—Charles S. Anthony and J. Manheim, Taunton, Mass.
- 190,564—Machines for Putting up Self-litiz Powders.—Charles R. Doane, Brooklyn, N. Y.

TRADE MARKS.

- 24,520—Mineral Waters.—Gerolsteiner Sprudel W. Castendyck, Gerolstein, Germany. The representation of a heraldic lion upon a star.
- 24,531—Natural Mineral Water.—Waukesha Lithia Spring Co., Chicago, Ill. The representation of a pneumatic-cylindrical life-preserver, with the symbols "L2 O" upon it.
- 24,535—Medicinal Wines.—F. Comar et Fils & Co, Paris, France. The words "Vin Nourry" and the fac-simile signature "J. Nourry."
- 24,537—Linctent.—Wm. C. Johnson, Eau Claire, Wis. The word "Volco."
- 24,538—Egg Water.—Ann E. Brady, New York. The words "Diamond Water" in connection with the representation of an eye.
- 24,539—Line of Proprietary Preparations.—Foley & Co., Chicago. The words "A Friend of the Family."
- 24,540—Fluid Medicine to Neutralize the Effect of Microbes on the Physical System. Goodman & Macatee, New York. The words "Macatee's Microbicide" in two parallel lines, one letter "M" serving as the initial letter of both words.
- 24,541—Shampoo for the Hair.—James Whitney Barnum, Louisville, Ky. The word "Shamponia."
- 24,542—Toilet Soap.—The J. B. Williams Co., Glastonbury, Conn. The representation of a cow's head.
- 24,545—Flavoring and Perfuming Extracts.—Charles S. Netter, New York. The words "Love's Extracts."
- 24,546—Insect Powders.—Adolph Thurmayr, Stuttgart, Germany. The word "Thurmeline."
- 24,587—Toilet Soap and Lotions.—Charles Emory Cornell, New York, N. Y. The representation of an ear of corn.
- 24,588—Face Powder.—Henry Tetlow, Philadelphia, Pa.—The words "Blanc Illusion."
- 24,589—Preparation for Beautifying the Complexion.—Wm. A. Hance, Springfield, Ohio. The words "Diamond Dew."
- 24,590—Balm or Cosmetic.—Lyon Manufacturing Co., Brooklyn, N. Y. The words "Hagan's Magnolia Balm."
- 24,591—Preparation for the Hair.—Lyon Manufacturing Co., Brooklyn, N. Y. The words "Lyon's Kathalron for the Hair."
- 24,592—Liniment.—Lyon Manufacturing Co., Brooklyn, N. Y. The words "Mexican Mustang Liniment."
- 24,593—Extract of Sarsaparilla, Cough Cure, Pills, Salve and Worm Tablets.—Charles E. McIntosh, Calais, Me. The words "Dr. Thomson's" and his portrait.
- 24,594—Remedies for Throat and Lung Diseases.—Gilpin, Langdon & Co., Baltimore, Md. The word "Kreol."

BOOKS.

***BRIEFER COURSE, ELEMENTS OF CHEMISTRY.**—As its title implies, this work is a brief course in chemistry, following in general the plan of the more pretentious work, "Shepard's Elements of Chemistry," by the same author. It has been the author's intention to furnish a comprehensive work in which the experiments and laboratory work are so simplified and arranged as to come within the time usually available in schools where but part of the year is allotted to the study of chemistry. The work will be appreciated by those whose time is limited to a consideration of the main facts of a science which has no limits, and the careful selection of experimental illustrations will be of great aid to the student in making application of these facts.

***THE DISEASES OF THE WILL.**—Those who have read with interest the works of Ribot upon the diseases of personality and the psychology of attention will find this interest revived with the announcement of another work by the same author bearing the above title. The author has attempted the exposition of a certain branch of psychology by a method which is directly opposite to the evolutionary idea which has heretofore dominated such investigations, and instead has approached the subject from a different direction by carefully studying the anomalies of these psychological attributes of the human race. The work is divided into five chapters, and its character may be judged by the following titles of the same, viz.: (1) "Impairments of the Will—Defect of Impulse;" (2) "Impairments of the Will—Excess of Impulse;" (3) "Impairments of Voluntary Attention;" (4) "The Realm of Caprices;" (5) "The Extinction of the Will."

***FORMULAIRE DES MEDICAMENTS NOUVEAUX ET DES MEDICATIONS NOUVELLES, POUR 1894.**—As its title indicates, this little work is designed to keep the French pharmacist and physician posted upon the new remedies which are being introduced so constantly, and the fifth edition which is now before us contains a large number of brief, condensed descriptions of the newer synthetic remedies, as well as references to many of our common plants, which are evidently just beginning to be recognized by the French medical profession. While occupying but little space, the descriptions are quite comprehensive, embracing in the case of plants the description, physiological and therapeutical properties and

***Briefer Course, Elements of Chemistry,** by James H. Shepard, Professor of Chemistry, South Dakota Agricultural College and Chemist to the U. S. Experiment Station, South Dakota. Cloth, 240 pages. Boston: D. C. Heath & Co.

***The Diseases of the Will,** by Th. Ribot, Professor of Comparative and Experimental Psychology, College de France. Translated by Merwin-Marie Snell. Cloth, 134 pages. Chicago: The Open Court Publishing Co. Price, 75 cents.

***Formulaire des Medicaments Nouveaux et des Medications Nouvelles, Pour 1894.** By H. Boissillon-Limousin. Introduction by Henri Huchard. fifth edition. Paris: J. B. Bailliere et Fils, 9 Rue Hautefeuille. Cloth, 16mo, 314 pages.

method of employment and dose. Directions for the preparation of many of the synthetic remedies are also given. Quite a little space is given to the methods employed in the manufacture of extracts of animal origin, such as cardine, "liquid cerebral," and those from the pancreas, thyroid glands, etc.

***A MANUAL OF MICROCHEMICAL ANALYSIS.**—Processes which have been devised of late years called "Microchemical Methods," by which minute particles of the rock-forming minerals may be subjected to a more or less complete chemical analysis, have developed into such magnitude and importance that the desire for a work devoted especially to such methods has long been felt by those students of chemistry whose inclinations led them in the direction of petrographical research. It is doing no violence to a trite saying in asserting that this book supplies a long-felt want, as the ground seems to be completely covered, and the advantages as well as the disadvantages of the various methods are referred to in a quite candid manner. Although microchemical analysis has its most direct bearing within the domain of geological research, yet Professor Judd, in the introduction to the work, says: "It is evident that, like blowpipe assaying, the methods described in this work may be often employed with advantage in the ordinary chemical laboratory, either for rapid testing or in confirmation of the results obtained by other processes. Archaeologists and metallurgists, too, will often find the methods for examining the alloys of great service, especially in cases like those of manufactured articles or objects of art, in which only very minute quantities of the material are available for analysis."

THE STATE BOARD OF HEALTH OF MASSACHUSETTS has prepared a very valuable manual for the use of the various local boards of that State. The book contains the statutes relating to public health, the medical examiner laws, the laws relating to the registration of vital statistics and the decisions of the Supreme Court of Massachusetts relating to the same. The work has been carefully compiled, and contains much information of value to those interested in public health and sanitation.

PAMPHLETS RECEIVED.—The works of Justine Siegemundin, the midwife; *The Limitations of the Use of Pessary*; abstract of two articles treating of progress in midwifery; a case of double vagina, with operations—all being reprints of articles in the Johns Hopkins Hospital Bulletin and Maryland Medical Journal, by Hunter Robb, M. D., associate in gynecology.

The Block Drug Company of Chattanooga, Tenn., has been succeeded by M. Block & Co., Mr. Leo Block having transferred his stock to the latter concern.

***A Manual of Microchemical Analysis,** by Prof. H. Behrens of the Polytechnic School, Delft, Holland, with introduction by Prof. John W. Rudd, F. R. S., Royal College of Science, London. Cloth, 246 pages, 34 illustrations. Macmillan & Co., London, and 65 Fifth avenue, New York. Price, \$1.50.

MARKETS.

A COMPLETE PRICES CURRENT, covering all staples, drugs, chemicals, etc., usually purchased by retail druggists, will be found on page 45 of this issue, in the back part of the journal.

Advanced.	Declined.
Balsam Peru	Opium
Coriander seed	Morphine
Lovage root	Balsam fir
Menthol	Citric acid
Oil citronella	Ipecac
Paris green	Oil bergamot
Sarsaparilla	Oil lemon
Spermaceti	Oil orange
	Salts of iron
	Saffron
	Serpentaria root.

New York, May 25, 1894.

With the advent of milder weather there has developed an increased inquiry for the more seasonable varieties of articles in the drug department, such as citric acid, camphor, etc., but the general demand continues almost exclusively for moderate quantities to meet current necessities of consumers, and the movement of round lots is still held in check by the long-delayed and vexatious tariff question. Holders of merchandise, however, are not disposed to force business through the medium of concessions, and values, as a rule, are maintained with a remarkable degree of steadiness. Perhaps this is largely due to the fact that current values are comparatively low, and that in very few instances could stocks be replenished from primary sources at figures materially below ruling spot prices. The orders received cover a wide extent of territory, and show no particular activity in any section, although the West and Southwest are the principal buyers. Speculative interest has again become almost dormant, and the bulk of the business has been in accordance with legitimate wants of the consuming trade. Consequently there has been little opportunity for radical fluctuations, and changes have been mainly within a narrow range. From a financial point of view the situation is satisfactory, and collections are being made with very little difficulty. This is largely the result of careful and conservative methods pursued by consumers when making their purchases, and should meet with approval from dealers, as such conditions naturally impart a feeling of confidence, and give the general market a healthy undertone.

OPIUM—The unsettled condition of the market noted in our last report has resulted in the development of a decidedly weaker feeling, and values have gradually but steadily declined during the interval covered by this review, and a loss is shown of fully 15 cents per lb. The causes influencing the depression are numerous, and include unusually liberal stocks, lack of important demand, weaker primary markets, favorable reports regarding the growing crops and the probability that the article will not be placed on the dutiable list in the pending tariff bill. Some are inclined to believe that sufficient pressure will be forthcoming at the proper time to

reconsider the question of duty, and that the original proposition to exact \$1 per lb. will finally succeed. Others are equally sanguine that it will remain on the free list, and they predict further concessions in prices.

POWDERED OPIUM—Is also weak and lower, and the reduction is fully 25 cents per lb. on the various tests. The demand, however, has been unimportant, and buyers have kept close to actual necessities in view of the depressed condition of the market for gum.

MORPHINE—Has also been affected by the weakness in opium, and, on the 19th inst., manufacturers announced a general reduction of 10 cents per oz. on all-sized packages of acetate, muriate and sulphate. The decline has not stimulated demand, and the market has presented a quiet appearance.

QUININE—There is no material change in the general condition of the market for this article, except that the stock in second hands has been gradually reduced by a steady, far, consuming demand, and a consequent firmer feeling is manifest on the part of holders. Manufacturers of both domestic and foreign adhere steadily to previous prices, and there is nothing in the future outlook of a discouraging character. On the contrary, the belief is gaining ground that as soon as the low cost supplies in second hands are absorbed manufacturers will again advance their selling limit.

ARSENIC—No change has occurred in white, the desirable brands being held with steadiness under a fair inquiry, but Saxony red has ruled easier, owing to increased offerings, and values show a fractional decline.

BALSAM COPAIBA—A continued firm feeling prevails throughout the market, with jobbing parcels moving freely into channels of consumption, and, although former prices are still acceptable, there are indications of an early improvement in strictly prime grades of Central American, which are said to be in exceedingly limited supply and more or less concentrated in few hands.

BALSAM FIR—The outlook for new crop Canada continues promising, and the tone of the spot market is easy, with values showing a further decline of 5 cents per lb. Consumers are slow to respond, and no business of consequence has transpired.

BALSAM PERU—Has continued to harlequin under the influences previously noted, and the principal holders have advanced their quotations 10@15 cents per lb. For small lots in outside hands former prices might yet be accepted.

CORIANDER SPED—The closely concentrated stock is held with decided firmness, and values are again slightly higher, with every probability of a further advance as the result of increasing scarcity.

CITRIC ACID—Is seasonably active, and a fairly liberal business is in progress, but owing to lower markets abroad values have ruled easy, and manufacturers have reduced quotations 1 cent per lb. for both kegs and barrels.

CAMPHOR—Is also meeting with the usual active seasonable demand, but the market is without other noteworthy feature, as manufacturers' prices remain un-

changed, and there is nothing in the condition of the market for crude to influence any material fluctuation.

CHOCOLATE—The last season's output has about all come forward, and with the principal consumers well supplied there is not much inquiry for the stock remaining in first hands. Values, however, are fairly steady, and there is no pressure to force business.

CHLORATE OF POTASH—Remains dull, with the tone of the market weak, and fractional concessions have been granted to purchasers of English crystals.

CASCARA SAGRADA—Prime quality old has continued in active demand and steady, but new crop has been arriving in liberal quantities, and values have ruled weak and lower.

COLAINE—Manufacturers have made a reduction of 50 cents per oz. in their schedule rates for all sized packages and now quote ounces \$5.45, halves \$5.50, quarters \$5.55 and eighths \$5.65.

COD LIVER OIL—There has been no material change in prices during the past two weeks, but the market is hardly so firm as on the date of our last issue, and there is less anxiety shown by buyers. Holders of the more popular brands report a fair distribution to consumers, but transactions have been mainly of the jobbing order.

DEER TONGUE—Is very scarce, and current quotations are comparatively extreme, but consumers in want of stock seem to realize the situation and meet holders' views.

IPECACUANHA—Has declined abroad, and prices here are easier, with some holders reporting a decline of 2-1-2 cents per lb.

JUNPER BERRIES—Are firmer on the report that the new crop is practically a failure, and that prime old are very scarce in primary markets.

GUM KINO—Is strong at the advance previously noted, and, with the limited stock steadily diminishing, still higher prices are anticipated.

LOVAGE ROOT—Is scarce and higher, holders having advanced prices 5@10 cents per lb., but there is no important inquiry.

MANNA—Has been receiving increased attention, and some business is reported in large flake, but at lower prices. Small flake is wanted at slight concessions from previous figures, but holders are decidedly firm and quote an advance of one cent.

MENTHOL—Has further improved, in sympathy with foreign markets, and the bulk of the available stock is held at prices showing an advance of fully 25 cents per lb.

OIL BERGAMOT—Sanderson's and other brands have declined 10 cents per lb.

OIL LEMON—Values of all brands have been reduced 5 cents, and concentrated is \$4 per lb. lower.

OIL ORANGE—Also shows a reduction of 5 cents on all varieties, and \$4 on concentrated.

OIL CITRONELLA—Is in light supply and wanted, with the tone of the market firm and values about 1 cent higher.

OIL CUBEB—Shows a lamper range, mainly in sympathy with the easy feeling in berries, occasioned by liberal stocks.

OIL PENNYROYAL—The demand increases with the advancing season, and prices are steadily maintained for both American and foreign.

PAIS GREEN—The market has developed a stronger tone, and on the 15th inst. the combination of manufacturers announced an advance of 3 cents per lb. on all sized packages and quantities. The tendency is still upward, and a further improvement in the near future is not improvable. The following is the new schedule of prices:

In arsenic kegs or casks.....	cents 25
Kegs, 100 to 175 lbs.....	30 1/2
14, 28 and 56 lbs., iron cans or bxs., net weight.....	25
2 to 5 lb. paper bxs.....	25
1 lb. paper bxs.....	25 1/2
1/2 lb. paper bxs.....	27 1/2
1/4 lb. paper bxs.....	29 1/2
One to 5 lb. tin bxs. put up to order at an advance of 1/2 cent per lb. over paper bxs. of similar sizes.	

Terms.—Payable July 1, 1894. Discount, 6 per cent. per annum for unexpired time. Rebates.—To purchasers of 10,000 lbs. or over during the season, 3 cents per lb.; 4,000@10,000 lbs., 2 1/2; 2,000@4,000 lbs., 2; 1,000@2,000 lbs., 1 1/2; 500@1,000 lbs., 1.

SALTS OF IRON—The easier feeling in citric acid has influenced a weaker tendency, and manufacturers of scales have reduced their quotations 2 cents per lb.

SAFFRON—American continues easy in tone, and the principal holders have made a further reduction of 3@5 cents per lb. A fair jobbing business is in progress, but with the tendency of values toward a still lower basis there is no disposition shown to operate in large parcels.

SARSAPARILLA—Mexican is in reduced supply, all the parcels in first hands having been taken either for export or by dealers, and with everything available on the spot controlled by the latter, the tone of the market is firmer, with prices again fractionally higher.

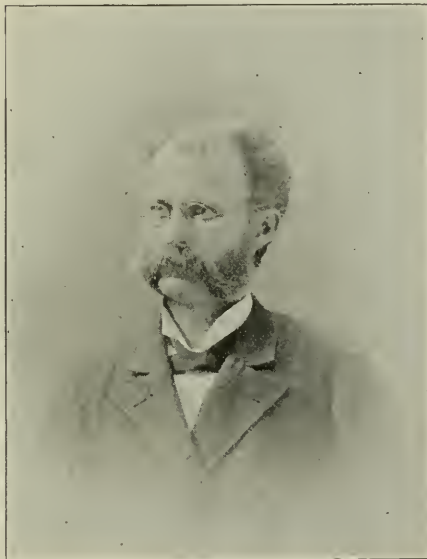
SERPENTARIA ROOT—The near approach of new crop has had a tendency to weaken the market, and sellers have modified their views to the extent of reducing prices 2@3 cents per lb.

SPERMACEITE—Continues to rule strong under light supplies, and values of cakes are about 1 cent per lb. higher.

TONKA BEANS—Angostura are held firmly at the recent advance, and further sales have reduced the spot stock to a minimum. Crop accounts continue unfavorable.

W. H. Bowdler & Co., Boston, report that although beeswax is more plentiful, the surplus is quickly taken by foreign buyers. Prices for crude range from 23 to 30 cents, according to quality. Carnauba wax tends downward in anticipation of the new crop. Ozokerite remains at previously quoted prices.

A thirty-inch wheel, ball-bearing, pneumatic tire bicycle, weighing thirty-seven pounds, for \$35, less 5 per cent. discount for cash in ten days, is what the Columbia Carriage and Cycle Co., 26 Broadway, Milwaukee, Wis., offer in their advertisement in this issue. Or they will ship, C. O. D., with privilege of examination and 7-1-2 per cent. discount. They guarantee the wheel, and refer to any bank in the city of Milwaukee.



A. B. STEVENS.

ONE of the earnest and hardworking men in the profession of pharmacy is A. B. Stevens of the University of Michigan. There are few men who so ardently desire those advancements and reforms which will place the pharmaceutical profession upon a broad and solid basis, and few who, from an honest love of the profession are willing to make such personal sacrifice of time and labor to accomplish these results.

Mr. Stevens is a thoroughly self-made man, being obliged by the death of his parents to rely upon himself at a very early age. With a record for good scholarship and excellent moral character he graduated from the University of Michigan in 1875, without having had any previous experience.

Times were hard, positions were scarce and Mr. Stevens labored under the disadvantage of possessing few acquaintances able to assist him in the pharma-

ceutical line. The first position offered him was that of errand boy in a thriving store in Detroit. The position was accepted, but before the close of the first day his ability and excellent training were recognized, and he was given permission to compound prescriptions. In less than six months he was invited by his employer to take entire charge of the store.

In the year 1877 he opened a prescription store of his own, located upon the corner of Lafayette and Shelby streets, and here for a period of ten years he enjoyed a successful business and made many business and personal friends. He was the first president of the Detroit Pharmaceutical Society, and has ever felt a deep and abiding interest in its welfare. He was for two years instructor in the Detroit Medical College, combining laboratory work with lectures for medical students. In 1887 he was called to

take charge of pharmacy in the School of Pharmacy in the University of Michigan, where he still remains. Mr. Stevens is a thorough and systematic teacher, well abreast of the times. He is a man of honest Christian principle, in hearty sympathy with young men, especially those obliged to rely on themselves for livelihood and education, and is constantly pressing home the need of accurate knowledge and perfect integrity of character in those who wish to enter the pharmaceutical profession. For several years he has been an active member of the American Pharmaceutical Association, having served as secretary and chairman of the section on education and legislation. Mr. Stevens is also the present president of the Michigan State Pharmaceutical Association, an association in which he feels no small degree of interest and of pride.

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EDITORIAL.

INDEX TO VOLUME XI.

The present issue of the Era is the concluding number of the eleventh volume of the publication, and we feel assured that the verdict which our friends may render upon its contents will be one of commendation which will encourage us to still greater efforts for the future. We take this opportunity to refer to the index which accompanies this number. This index enumerates some 1,600 titles, and a little careful notice will discover the great variety and appropriate nature of the information given. There has been maintained in each number a high average of number and quality of original contributions. Nearly 400 queries from readers have received reply, the illustrations have been profuse and of best quality, and no branch of the drug business has failed to receive thorough attention. Several times has it been necessary to increase the number of pages, so that the total for the volume reaches 596. Although this index may be regarded as a record of achievement, we desire to impress upon our readers its intrinsic value as a guide to recent pharmaceutical affairs, and hope it will prove a key to a storehouse of useful information. When in search of anything of professional interest the best way to find it is to consult the index.

NATIONAL BUREAU OF HEALTH.

A movement fast gathering strength among the medical fraternity is that directed toward the establishment of a national bureau of public health, and in the newspapers, too, appear frequent commendatory expressions. The demand has, in fact, become a public one, and it is very probable that Congress will, at a not far distant date, be called upon to give the matter the attention it merits. The New York Academy of Medicine is distributing a pamphlet collection of literature and editorial opinions, showing the trend of public sentiment, which, it is believed, will crystallize into a formal demand upon Congress to pass some bill which will give that protection to the health of the people which they have a right to demand. As one of our medical exchanges succinctly puts it, "The practically unanimous opinion of the profession, and of all rational thinkers in the general public, is that in the light of modern medical discoveries our people ought not to go on dying by tens of thousands each year from tuberculosis, typhoid fever and diphtheria, for they are all preventable diseases. Certainly much more will be

accomplished by governmental aid, directed in unison with State and local health authorities, than by the latter alone, however well directed."

We would suggest that pharmaceutical associations could do much to aid the cause by passing resolutions of approval, or taking other appropriate action.

PURE ESSENTIAL OILS.

We print elsewhere the major part of the report of the United States Consul at Messina regarding the character of the essential oils produced there. The exhibit is an interesting one, though the conclusion to be drawn from it is not so highly comforting a nature as might be wished. All of the exporters state that the oils of lemon, bergamot, orange, etc., are largely adulterated, and not a few virtually admit that little else than an adulterated product is sent to the United States. Apparently the degree of adulteration is governed by the price to be paid, and the reason given for sending the poor grades to this country is that our market will not pay the price for the pure article. The adulterant most largely employed is oil of turpentine, which in physical character and chemical composition is so closely like the genuine essential oil that it is almost sure to escape detection; in fact, its differentiation with absolute certainty is a matter that few chemists are willing to swear to. Some argue that the addition of turpentine really improves the quality of the essential oil; perhaps so, but the purchaser should be told of its presence. It is curious, too, to see the many degrees of comparison to which the adjective "pure" is subjected in the description of the various brands and qualities. One exporter has been driven to the use of the word in unqualified, naked form to designate his genuine, unsophisticated oil. Apparently the only way to get a pure oil is to pay a good price for it and entrust the order to a firm whose word can be relied upon. There are pure oils in Messina, and the trade of the United States should be willing to pay their value. The drug trade cannot afford to get a reputation for cheap goods in any line.

EDITION AND ISSUE.

The Chemist and Druggist, in its issue of May 19, thus good-naturedly comments upon the Moving Day number of the Era: "The illuminated cover idea which the Chemist and Druggist introduced into pharmaceutical journalism, has moved as far West as Detroit, where the 'moving day edition' of the Pharmaceutical Era comes out with chromo views of Detroit on the front and of New York on the back. The Era seems proud of its number, for it says: 'The edition, if we are correctly informed, is the largest of any drug paper in this or any other country.' Our contemporary is not correctly informed. Its issue is not half the size of the last Winter issue of the Chemist and Druggist, upon which it is admirably modeled."

We must confess that the "illuminated cover idea" was not without precedent when our May 1st issue appeared, but we regret that we cannot show our readers, by reproducing previous contemporaneous efforts along the same line, the

great progress which has been made in such matters. Regarding the size, we must also confess that a copy of the Moving Day number will not weigh as much as the number of the C. & D. referred to, but we still think our statement regarding the edition is correct. In this country we are in the habit of depending upon Noah Webster's excellent Dictionary for a choice of words whenever we desire to be extraordinarily truthful, and, relying upon the correctness of that eminent authority, who says under the head of "Edition, (2.)" The whole number of copies of a work published at once; as, edition of 1,000 copies," we still think we were correctly informed when we used the words "largest edition" for we issued 40,000 copies of that issue. If our friends across the water have, at any time, sent out a larger edition of their excellent journal, why in the name of little Jack Horner and his remarkable feat, have we not been informed of it?

THE VALUE OF TESTIMONIALS.

A case of peculiar significance is now perplexing the legal luminaries in Rochester, N. Y., and vicinity, the result of which may possibly lead to some repairs upon the medical and pharmaceutical codes of ethics, and may, perhaps, pave the way for an additional chapter to the works on Jurisprudence of the allied professions. Albert A. Baker, a druggist of Rochester, has created a precedent which, if success attends his efforts, will redound to the benefit of the general public, and at the same time stand as a danger signal to the venturesome patent medicine man. Mr. Baker has commenced action against the American agents of Acker's English Remedy, to restrain them from publishing and circulating a certain testimonial which he wrote during the Summer of 1891, when he believed that the remedy in question had saved his life. Mr. Baker declares that he forbade the defendants to continue the publication of the testimonial, and that the same was published without his consent and contrary to his wishes. He further avers that the publication has caused him considerable annoyance, as various persons have threatened to boycott his business on account of his appearance as a purveyor of patent medicines.

Now comes an interesting portion of the suit. Mr. Baker says he is a regularly qualified and practicing druggist in the city of Rochester, where he is so well and favorably known "that his recommendation of a drug or medicine is of value to all persons therein concerned," and he now seeks through the present suit to recover a share of the profits which the company has received through the unauthorized publication of his testimonial. The courts have already decided in favor of the plaintiff by overruling a demurrer from the defendant, who contended that there was no cause for action, and the case will be tried upon its merits at an equity term of the Supreme Court this Fall. That the result is awaited with great interest goes without saying. When we consider the vast number of people who have been snatched from untimely graves by using certain patent medicines, and whose portraits have been placed in evidence in the public prints for the detection of the terrified public, the situ-

ation becomes truly appalling. The bare thought that all these people may soon be clamoring for a share in the profits of the proprietary medicine men may well fill the souls of these gentlemen with a horrible dread, and cause the cold, clammy sweat of anguish to roll down their perturbed brows.

GROCERS AND PHARMACY LAWS.

The Grocers' Criterion says: "There is urgent need of a better and more effective pharmacy law than that which exists at the present time, which should determine without question what a grocer can sell in the way of drugs, etc." Our contemporary indulges in the farther reflection that "of course, druggists are interested in preventing, as far as possible, the handling of drugs by grocers, and are zealous in their efforts to prevent grocers from selling patent medicines."

We thoroughly agree with both statements. A law which is capable of various interpretations is assuredly susceptible of improvement. Some of our laws are very loosely drawn and carelessly worded. Grocers are permitted to deal in the "usual domestic remedies." Will any two persons interpret this alike? The law should state explicitly the individual articles the grocer may handle, and not leave it to his rather misty knowledge of chemical and pharmaceutical products to determine which ones fall within his province. We believe the grocer should not be allowed to sell any drugs to be used as medicines. He may sell those which are used in household processes of cleaning and dyeing, for making agricultural insecticides, etc. (though even here it would be better if he did not handle them), but should be rigidly debarred from dealing in remedials and potent medicines. Under present circumstances in this country and because of the absence of drug stores in sparsely settled rural districts, it would perhaps be inexpedient to deny him the sale of patent medicines and regularly packeted and labeled household remedies, but of these he should not be allowed to deal in any which contain principles which, through careless or ignorant use, will result harmfully. We would it were possible to prevent him from selling even this mongrel type of medicines, for the grocer is not the legitimate and natural purveyor of medicines; these belong to the pharmacist, who must qualify himself to handle them by years of professional training, and who, being thus qualified, is held answerable to the law for every remissness. To be sure, Friend Criterion, the druggists are zealous to prevent the handling of drugs and patent medicines by grocers. These belong in the drug trade alone. Over in England, if the grocer sells any poison or any patent medicine containing a poison he is prosecuted. We would like to see similar restrictions here. The people would not suffer if the grocer could not sell drugs; there are properly qualified persons to do this. We do not like to see grocers encroaching upon the druggists' business, nor druggists cutting into the cigar trade, but in this free and enlightened land there seems to be a disposition in every business to get a slice of some other fellow's line. It has reached a point where the grocery and drug trades are so deftly

dovetailed that they cannot be separated without considerable disturbance.

But, anyhow, let us have it down in black and white in the law just what particular drugs, chemicals, patent medicines, etc., the grocer may sell.

THE SEWING CIRCLE.

We have received so many favorable commendations and expressions of hearty good will upon the issue of our "Moving Day" number that it is positively refreshing to welcome a bit of unfavorable comment. While we might have harbored a thought that some of these kind words emanated from an excess of courtesy on the part of our friends, we are in possession of the most satisfactory evidence that the issue as a whole was an unqualified success.

The criticisms in question are from the Bulletin of Pharmacy, and are on much the same line with what Mrs. Jones would tell Mrs. Smith about Mrs. Brown's new dress at the weekly meeting of the sewing circle, but in so doing she calls attention to her own poverty of apparel rather than to the elegance of Mrs. B.'s attire.

Objection is raised to the picture of Niagara Falls upon our front cover. We have always understood that there are a few peculiarly constituted individuals who could never recognize the beauty of that great work of nature. We are content now that one of them has been definitely located. An objection is also lodged against the view of Brooklyn Bridge upon the fourth cover. We fail to see the justice of this criticism, but reflect that it might have been more caustic had the critic ever seen the bridge itself.

Another thing which apparently gnaws at the vitals of our contemporary is the horrible suspicion that we received money for publishing these illustrations. Bless its dear innocent soul, none but a novice at the business would ever think of making such a break, and please don't show such ignorance again. Were we not dealing with a senile old lady with a propensity for gossiping, we might ill naturally say it was none of her business.

The Bulletin also makes the wonderful discovery that we did not do it all ourselves, but that we hired others to help us, and that we are "prancing in borrowed plumes" because we showed illustrations from other printing establishments which did work on the Era. Had our critic taken less time to scour about the printing offices of Detroit to find the originals of our pictures, and more time to examine the molehill out of which he constructed his mountain, he would have discovered that our "labels" were strictly correct in every case, and that on editorial page 391 we extended our hearty thanks to the several concerns who helped us to produce that great number. We tried to be modest in our statements about the number of printing, lithographing and engraving firms we were compelled to call to our assistance in producing the issue, but we are now forced to admit that it did require the combined efforts of several large concerns both in Detroit and New York. We might add that instances are rare where pub-

lications of the character of the Era support "plants" of their own, for they would be needed but a few days in each month to produce editions so few and far between. The exceptions to this rule are those journals which are conducted as side issues to some manufacturing concerns for the advertising of their wares at second-class postage rates, in which case presses and type find continuous employment in turning out patent medicine labels, private formula literature and "ethical platforms" for the guidance of the medical profession.

The most amusing incident at this particular meeting of the old ladies' sewing circle was the sudden departure of Mrs. Smith. She was so nervous and excited after listening to Mrs. Jones' twaddle that she couldn't wait another minute, but toddled right off down to William street to tell "Grandma."

DOSES IN THE U. S. P.

The Pharmacopoeial Convention which met in Washington in May, 1890, instructed the new revision committee to omit doses in the revision of the pharmacopoeia which was given into its charge. Some of the members of the committee individually did not approve of this direction, and the sentiment of a very large proportion of the pharmacists of the country was strongly opposed to it. But the committee of revision had no option in the matter. It was commanded to omit doses, and it did so. The Era has frequently expressed its views on this subject, in effect that, all things considered, it is very desirable that the pharmacist's official guide and authority should be authority on dosage, too. There is now no recognized authority, none which would have immediate recognition in the courts. We have to consult a variety of reference works, reconcile conflicting statements and strike such a mean as seems safest and best.

Of course, we all understand that dosage is not an exact science; but surely the pharmacopoeia can do as much as the dispensatories, and state maximum and minimum limits. It is frequently said that the pharmacopoeia is not popular with druggists, and that physicians hardly use it at all, and this reproach is not entirely unwarranted. The pharmacopoeia is "good, what there is of it," but there isn't enough of it. The druggist, compounding a prescription, can find in the pharmacopoeia the various physical and chemical characteristics of a chemical, but for the (to him) most important information, the size of the dose, he must turn to the dispensatory. As the dispensatory contains all the pharmacopoeia does and much besides, it is natural that it receive the preference. The consequence has been and is that if the pharmacist can afford but one of the works, he purchases the dispensatory. In hundreds of drug stores the pharmacopoeia is not to be found, and, really, if there be found a dispensatory, of what service would be the pharmacopoeia? Of course, the lack of popularity of the pharmacopoeia is largely due to the liberal employment of its text in the larger and more comprehensive dispensatories, and so long as this is allowed, the dispensatories will be

first choice; but beyond all this, is the truth that the pharmacopœia does not give what the druggist wants and needs, and in this category of missing information is that pertaining to doses. Some will say that doses vary so greatly according to the varying conditions under which they are administered that they cannot be stated with definiteness and accuracy; surely the pharmacopœia can be as definite and accurate as the dispensatories, medical works and manufacturers' circulars.

We believe that it will materially enhance the value of the pharmacopœia if the doses are included, and we also believe that the majority of the pharmacists who use this book are of the same opinion. This desirable improvement can be made if the delegates to the convention in 1900, appointed by the several State associations, colleges, etc., are instructed to this effect, and it is the duty of pharmacists to see that their delegates are so instructed.

Pharmacists and physicians who purchase the book are justly entitled to this information, and a liberal discussion of the subject will produce the desired results.

A DANGEROUS CATARRH CURE.

It cannot be denied that there is a legitimate field for proprietary medicines, and that there are legitimate preparations to meet this demand. To greater or less extent the people always have done and always will do a certain amount of self-diagnosing and self-medicating. For minor, trivial ailments they persist in doing themselves, and the choice of the particular remedy is determined largely by the character of the laudatory circulars and attractive advertising matter of the proprietary preparation. To avoid the expense of consultation with a physician the patent medicine is brought to service. Nor can it be denied that there is considerable evidence of good results from such procedure. Statements that self-treatment with secret remedies is futile or dangerous are absolutely without weight against the positive assertions of benefit gained from this or that patent medicine. Nor in the case of very many patent medicines is there much need to condemn them; they may or may not do good, but they surely can do little or no harm. The principal objections to them are their extravagant price, and the encouragement they supply to the habits of self-diagnosing and self-medication, habits of which little good can be said. Thus we may grant a certain sphere of employment to preparations of an innocuous and harmless nature, for the people will have them.

But there is a class which cannot be too severely condemned. It includes preparations which, under a fair exterior of fulsome pretensions, conceal most harmful characteristics. By false claims, by ingeniously worded advertisements, they beguile the people into using so-called remedies which are dangerous in the extreme. For the morphine habit are offered "cures" which contain morphine as the most potent ingredient, for the liquor habit is advised a "non-alcoholic" bitters, which analysis proves as strong in alcohol as is whisky or brandy. There

are others which, while claiming to cure a certain ailment, are almost sure to establish a drug habit infinitely worse than the affection under treatment.

There is one of this latter class brought to our notice concerning which the truth should be known and the people cautioned against it. We refer to Dr. Birney's Catarrh Cure, which is sold indiscriminately by druggists, but which cannot but be considered highly dangerous.

Arthur P. Reynolds, Commissioner of Health for Chicago, submits the following report on this nostrum:

Milk sugar.....	87.73
Cocaine hydrochlorate.....	3.79
Magnesium carbonate.....	5.17
Undetermined matter.....	
Moisture	
Menthol	3.41
Ground herb (probably stramonium)	
	100.00

He thus comments: "The cocaine extracted gave both chemical and physiological tests as to its identity. The ground herb was so small in amount that no alkaloid by which it could be differentiated could be extracted. The cocaine is the only substance in the cure that can be looked upon as dangerous, and the efficacy of the powder is mainly due to its presence. From the figures it is seen that the powder is nearly four per cent. cocaine. In the directions for using the powder, it is divided in about twenty portions and blown over the membranes at intervals of one-half to twelve hours, which in suitable cases will produce a relief from pain. In unsuitable cases relief from pain may not be had, and this will lead to the application of the powder in unusual quantities and consequently poisoning and a strong probability of developing the cocaine habit."

Evidence from druggists is that a cumulative appetite for this "cure" is developed by its use. Customers commencing with one bottle soon buy in quarter dozens, then in half or full dozen lots. The cocaine habit is perhaps the most debasing of all habits arising from the use of poisonous drugs, and the manufacturer who would subject innocent people to the risk of physical, mental and moral debasement should be summarily dealt with by law. It is the duty of the pharmaceutical fraternity to expose such dangerous nostrums, and in every way discourage their indiscriminate use.

PROSECUTION OF SUBSTITUTERS.

The Era related in its news columns, last issue, that the manufacturer of Pinaud's perfumes had secured evidence of wholesale counterfeiting of these goods, especially by parties on the Pacific coast, and proposed to take very stringent measures against them. In this number it is announced that legal action has been instituted, with every prospect of securing judgment against the defendants. The substitution here has been of a particularly offensive and fraudulent nature. Not only have the labels of the genuine been counterfeited, but the bottles themselves, and the customer would be able to find nothing save in the quality of the contents of the package to distinguish it from genuine. Infractionment has taken the form of as close an imi-

tation as possible of the original packages. In many instances whole bottles and labels are used again, and in others bottles are blown and labels lithographed exactly like the original, while all the details are copied, even to the capping of the bottle and the red string used to tie the cap on.

The sympathy of the trade and all right-minded people in general will be with the manufacturer in this instance, and it is to be hoped that he may succeed in making a summary example of the offenders. Any attempt to substitute or counterfeit is prima facie evidence of a fraudulent, even criminal design, and the State prison would seem the proper dwelling place of those who would thus trade upon the privileges and rights of another. If the proprietor of these goods succeeds in bringing these frauds to justice, it should be a most salutary lesson to others of like ilk. There is altogether too gross substitution, wholly inexcusable, being practiced with regard to proprietary articles. The proprietor has his rights in law and justice, and should be supported in them. In the present instance, it would seem that the offenders could be successfully proceeded against on any of several criminal counts, and the reputable trade would receive with satisfaction the news that the guilty parties have been brought up with a sharp turn and subjected to heavy penalty.

WHO DID IT?

An anonymous circular has recently been mailed to our advertising patrons containing a reprint of an article criticizing some features of our "Moving Day Number," which article first appeared in the Bulletin of Pharmacy and was reprinted in the June issue of the Druggists' Circular. In addition to the article the sender prints a note at the bottom of the circular, in black type, insinuating that our claims for the circulation of this special edition may not have been fulfilled.

The article itself is easily diagnosed as a very bad case of "sour grapes," and is so full of misstatements that we do not believe it worthy of serious consideration, but we answer it elsewhere in this issue as we think it deserves. The insinuation about the circulation of the edition is, however, about as contemptible a piece of dirty work as has been brought to our attention.

The Bulletin of Pharmacy is published in Detroit under the name of George S. Davis, who is general manager for the business of Parke, Davis & Co. The Druggists' Circular is published in New York, and its general manager is Benjamin Lillard.

These circulars give no intimation as to who sent them out. They are printed on perfectly plain paper, were mailed in blank envelopes, addressed in a feminine handwriting, and the stamps were canceled at the New York postoffice.

So far as the circulation of the edition is concerned, if any one questions our statement that the edition was 40,000 copies, we gladly invite such person to come to our office and examine our paper bills, printing bills and postoffice receipts, which will fully justify our statement.

We, of course, do not know who mailed the circulars; we have stated the facts, and our readers can draw their own conclusions. We did not suppose that we had a contemporary who was capable of such a contemptible trick. We believe in aggressive methods, and welcome a bit of rivalry among publishers for the sake of relieving the monotony of the business, if nothing else. But we cannot resort to such unprincipled methods as some one of our contemporaries seems inclined to pursue. We respect an open-handed fighter, even if we cannot agree with him, but we have the least particle of respect or consideration for a snake.

[Written for *The Era*.]

ACCOUNTING FOR THE USE OF PATENTS.

By S. P. Whitmarsh.

While proprietary medicines have always been disparaged by the medical profession as either harmful or useless substitutes for treatment by skilled practitioners, there are some reasons which, if fairly considered, should modify this harsh judgment. Perhaps in the light of facts that may be shown, a part of the responsibility for their use by the general public may justly be charged to the account of regularly educated physicians. A few dissent from an unqualified censure of patents and assert that the practice of self-dosing continually with every newly advertised remedy only increases the number of patients and makes professional services more profitable.

This view is quite likely to be correct as the former, and is much more convincing, since it is evident that the large amount of patent medicines consumed does not lessen the need of medical men nor discourage perceptibly the increasing number of those who seek admittance to the portals of the profession. If the rewards of regular medical practice seem to be visibly lessening, we may reasonably attribute the result to other causes not connected with the subject now under discussion.

At present the writer is attempting to account only in part for the influences that have encouraged the use of advertised remedies. One reason apparent at the start is that the public mind has become divested of the awe once felt for professional wisdom. Our educational system now instructs every pupil in the study of physiology and kindred subjects, thus familiarizing the new generation with a kind of knowledge once in the exclusive possession of medical graduates. By these means all are qualified to understand the treatises contained in books, prepared by professional authority, intended for household use, as well as the special literature, widely and freely distributed, for the purpose of explaining the action of advertised compounds. The masses who constitute the public, thus filled with information concerning the structure of the human body and its needs, together with the causes, symptoms and cure of disease, are apt to lose the blind faith once indulged in for professional services. They yearn to put this knowledge to practical use by prescribing for themselves, especially in all cases not classed as acute or dangerous. They are confirmed in the wisdom of this practice, because many advertised compounds bear the names of regular physicians and are introduced in the same way as other patent medicines by exclusive sale under proprietary rights. In only one feature do they differ. The proprietors invite a detailed statement of symptoms from every sufferer likely to become a patient, in order that advice by mail may supplement the virtue of a remedy which, while it is intended to cure a variety of diseases, may need some modification or auxiliary treatment to meet fully the conditions of each case. They thus unite in one person the professional and commercial features of the healing art, and sometimes become thereby possessors of fortunes that never could have

been accumulated by ordinary practice.

In addition to this class who ignore medical ethics, and in consequence are not in good standing with the profession, there are numerous physicians covering large territory in their practice, making stated appointments for consultations and treatment and using secret preparations of their own compounding. They resemble in a degree circuit riders, though they do not exhibit the beneficent and self-denying spirit of their counterparts of religious fame. They are specialists, pure and simple, yet not so simple as many who pin their faith on promises and guarantees that may mean little or much, but seldom, if ever, fill the measure of the patient's expectations. For while giving vehement assurances that unless practical results are secured no pay will be demanded, it usually follows that a fee must precede actual treatment, whether it ends in cure or failure. By appealing to the worn-out, chronic side of human nature by prodigal assurances so tempting to invalids, they successfully poach on the local preserves of their professional brethren, taking the cream of their practice and gathering shekels galore, but never prove so useful to the public as the hard-worked rank and file of the profession.

Though in both cases noted medical ethics condemn such practice as irregular and dishonoring to the profession, it has no more effect in the way of reform than any brutish fulmen launched through resolutions passed at local associations. But there is thereby a weakening of public faith in the efficiency of medical practice that indirectly increases the sale of advertised secret compounds.

This is emphatically an age of doubt. No faith or theory is safe from the free and easy method of analysis that upsets all settled convictions, whether they pertain to politics, religion, literature, philosophy or scientific research. The result is a shattering of idols, and it is just as likely to occur among the members of the medical profession as among the ranks of the laity. Therapeutics, as an applied science, is not exempt from the demon of doubt.

Perhaps for years after his graduation the ambitious practitioner holds to the theories of the old professors, working in a rut, as it were, for the first decade or two, till practice becomes monotonous. In time the once cherished belief in the remedial action of certain drugs is gradually weakened by repeated failures, while the varied effects such remedies have on patients of differing temperament render the practice of medicine, especially in chronic cases, a continued round of uncertain experiment. It may be some new and startling form of disease appears, requiring original and independent investigation, by which he is compelled to a revision of opinions once considered as fully established. In this frame of mind he is not apt to inspire the chronic invalid with hope as he used to when his own faith in the uniform action of medicine was stronger. On the other hand, patients perceiving the half-hearted confidence he has in the virtue of remedies, as prescribed by authority, are inclined to agree with him. Being thus convinced that medical practice is pure ex-

periment in so many cases, as a matter of economy, to save fees for a useless formality in prescribing, they decide to do their own experimenting.

Even in such case the faith of the patient in the curative power of drugs is not destroyed. He only exchanges one adviser for another. Whether that adviser be the advertisement sheet, with its thousands of assuring testimonials pictorially displayed, or the earnest recommendation of a new remedy, urged by a well-known neighbor who had used it with success, and whose word on matters of fact could not be questioned, "hope springs eternal" in the breast of the chronic sufferer. In thus pursuing health he samples all the promising remedies brought to his notice, with occasional success, and perhaps he lives as long and enjoys life fully as well as the layman who never left the orthodox medical faith to stray after strange gods. If he be asked the reason of his falling from grace he will truly reply: "The example of my family physician."

One other peculiarity of medical men may be noticed as having a tendency to weaken the bonds that formerly united physician and patient on a basis of mutual confidence. While this cannot be said of all, it is still so common as to have a perceptible influence. I allude to the practice of routine prescribing. Many physicians are in the habit of repeating some formula in office practice that covers a number of minor ailments, simply to save the trouble of a careful diagnosis of each case; and patients are quick to form conclusions. Whether such prescription hits the case or not they naturally consider it as the equivalent of a patent medicine, and no more likely to be of service than some advertised remedy put up from a stereotyped formula. The advantage, if any, seems to favor the latter, because being made by wholesale process it is more likely to be uniform in quality than the extemporaneous preparation of the druggist. The proprietor of the pharmacy where it is filled, in either case, gets his share of the profits, whoever is the prescriber. In the first instance the physician and he are in harmony, and the ethics of neither profession have been violated. In the second the druggist gets, in addition to a very reasonable profit, a share of unjust criticism from the medical profession, and is treated as an aider and abettor of the refractory patient. But this surely is a non sequitur. For if the druggist may be held accountable to just censure because of being a dealer in proprietary medicines, then the physician is equally responsible for all the vagaries of his hypochondriac patients, whose whims he humors because they swell the emoluments of his practice.

The fact is neither physicians nor pharmacists, as a class, are responsible for the present extensive sale and use of advertised secret compounds. Individuals undoubtedly in both professions have mutually and honestly tried to restrict both sale and use by fair argument and disinterested advice. Among druggists especially many have fought in the defense of medical ethics at a large sacrifice of pecuniary interest. Indeed, it is evident

that neither physicians nor pharmacists can hinder the mighty wave of revolutionary sentiment fostered by the increasing educational fads of the day. It is useless to reprimand or retaliate. The world is changing in mental as well as material characteristics, and the billows of this change are overwhelming opinions that were once thought substantial and worthy of permanent application. All one can now do is to throw a little oil of prudence on the disturbing element, so that long established, useful institutions may ride safely over the present tempestuous sea until time shall bring about more desirable conditions.

[Written for The Era.]

BUTTERNUT OIL.

By C. Hobly, Toledo, Ohio.

About three years ago, or more, we had a call from a lady customer for butternut oil. It was wanted, she said, for cracked nipples, and had been recommended to her by a friend. We had none in stock, could find no quotations in any price list accessible to us, the wholesale dealers had none. Finally, at the urgent request of our nearly distracted customer, we took the bull by the horns, as the saying is, and went to work to prepare some. We obtained the butternuts, cracked them and picked out the meats, which were then pounded fine in an iron mortar, the resulting pasty mass inclosed in muslin and expressed in a heated iron tincture press on a piece of sheet iron with upturned edges, and a spout in one corner to facilitate the collection of the oil. In this way quite a quantity of oil was obtained. Since then we have repeatedly prepared the oil in a similar manner, but only in small quantities and when we were requested to do so.

About four months ago, on receiving another call for some of the oil, we varied the procedure, and instead of expressing the oil, which, when operating with small quantities, is wasteful of oil and involves considerable exertion, we introduced the pasty mass, obtained by pounding the meats in a mortar, into a bottle and poured over it a quantity of benzine. After digesting for several hours and frequently shaking, the benzine was poured on a filter and collected in an evaporating dish, and more benzine poured on the residue in the bottle. The contents of the bottle, after further digestion, were thrown on the filter and the filtrate collected in the dish containing the first liquid poured off. Upon evaporating the benzine there remained a clear, straw-colored oil, possessing, however, a slight odor of benzine, amounting to about 50 per cent. of the meats or kernels; six and a half ounces of butternut meats yielding a little over three and one-fourth ounces of oil. By once more repeating the digestion with more benzine a little more oil might have been obtained, but not enough to pay for the benzine used and the time required for the manipulation. For extracting the oil from six and a half ounces of meats, we used ten ounces of benzine for the first and eight ounces for the second maceration, yielding respectively two and one-fourth ounces and one ounce of oil.

U. S. PHARMACOPOEIA AND ITS RESEARCH COMMITTEES.

To the Missouri State Pharmaceutical Association.

The undersigned has the honor to report the following in regard to the U. S. Pharmacopoeia:

The committee elected by the National Convention, held in Washington, D. C., in May, 1890, for revising the Pharmacopoeia, has, during the past year, completed the work of the seventh revision intrusted to it, and in August, 1893, the first copies of the work were exhibited at the meeting of the American Pharmaceutical Association at Chicago, and an edition of 5,000 copies was placed upon the market. This supply was soon exhausted, and was followed by a second edition of 5,000 copies, and again in 1894 a third edition of 5,000 had to be printed, and a large portion of these is already sold.

Altogether the reception of the work has been a favorable one, both at home and abroad. Criticisms have been published in a number of journals, some of them censuring the committee of revision for introducing or omitting features which were not in the power of the committee to control, as their action was limited by the instructions of the convention which elected the committee. Among the omissions especially censured was the non-introduction of a number of modern synthetic chemicals, such as antipyrin, phenacetin, sulfonal, etc., which are received into European pharmacopoeias. Many of the members of the Committee of Revision were in favor of their admission, but the stringent rule number 6, adopted by the convention, forbade this, and the only remedy for those who wish such preparations introduced will be that the delegates to the next convention give greater liberty of action to the committee they may then elect.

Another objection dwelt on by some critics was the failure to state the doses of the remedial agents, or at least the maximum doses of very active and poisonous preparations. This question was also under discussion in the convention, and though no formal restriction was placed upon the Committee of Revision, the sentiment expressed in the convention was so unfavorable to the introduction of doses that it was not deemed prudent to contravene it.

As in all large publications, a number of misprints have happened, and have been discovered too late for correction in the plates of the first edition. In spite of all care and the most painstaking proofreading, such mishaps will always occur, and are more liable to be overlooked where the authors of the book live distant from each other and from the place of publication. Unless the printing is to be unduly protracted, only a limited time can be given to reading the proofs, and this is much shortened when they are to be sent and returned by mail. In spite of many vigilant eyes, not only of the editor and the whole committee, but also of the outside assistants, a few errors were permitted to pass. Fortunately, they were mostly unimportant, such as each reader would readily correct when noticed, and a list of errata has been published to enable the purchasers of the first edition to correct them. The plates have at once been

corrected, so that the errors are eliminated from the later copies.

Since the publication of the Pharmacopoeia, the Committee of Revision has not been idle. Its active chairman, Dr. Charles Rice, with the consent of all the members, has organized "research" committees to engage in preparatory work in aid of the next revision. Thus far four such committees have been organized:

Research Committee A. Subject—"The feasibility of devising practical methods of assay for drugs containing no sharply defined proximate principles capable of being separated in a sufficiently pure state, such as ergot, digitalis, rhubarb, etc."

Chairman, Dr. W. M. Mew.

Research Committee B. Subject—"Revision of the descriptions and tests of inorganic chemicals, including salts or inorganic bases, with organic acids. Revision of the volumetric assays of the U. S. P. Study of the proper limits of purity or strength of chemicals, now official, or likely to become so hereafter."

Chairman, Dr. Charles O. Curtman.

Research Committee C. Subject—"Inquiry into the feasibility of incorporating into the U. S. P. methods of identifying such drugs as may be found to permit of it in a powdered condition."

Chairman, Dr. H. H. Rusby.

Research Committee D. Subject: "Revision of the description and tests of organic chemicals."

Chairman, Dr. Charles Rice.

The members of these committees are to be selected hereafter, and other committees are to be organized as occasion may arise. The results of the researches of these committees are to be reported to the whole Committee of Revision, and may be published by the authors, provided they state that the papers are reports of the U. S. P. Research Committees. This will secure to the profession an early knowledge of these researches, and an opportunity to repeat the experiments and verify or controvert them.

In conclusion, the undersigned would urge this association to take early action in considering all matters connected with the next revision of the U. S. Pharmacopoeia. Neither the pharmaceutical nor the medical profession is likely to lag behind in the progressive spirit of the age. New methods are being introduced, requiring new agents of medication, obsolete preparations are discarded, other standards of strength or purity may become advisable, and all of such matters require careful study and discussion, and should not be left to be decided at the last moment in a pharmacopoeial convention.

The wishes of this State association should be clearly ascertained in regard to the admission or rejection of certain preparations, in regard to inserting the doses of active remedies, to processes of manufacture or assay of galenic preparations and any other matters connected with our national pharmacopoeia, so that when the time comes to select delegates they may be apprised of the wishes of the profession, and not left to their personal impressions and the impulse of the moment when called upon to cast their

vote for the rules guiding the next committee of revision. Respectfully submitted on behalf of the committee,

CHARLES O. CURTMAN.

Chairman of the Committee on the United States Pharmacopoeia.

[Written for the ERA.]

UNPROFESSIONAL BOTANY.

By L. Sollman.

As Prof. Newcombe cleverly states in *The Era* of May 15, there are three branches to botany, "the physiological, the systematic and the trade branch." For science take the first, for dollars the third, but for pleasure choose the second. It gives you the quickest returns for labor expended. You have most opportunity to practice it. Botany as studied in colleges is a dry, uninviting food. Botany as applied to nature is the most fascinating science. The more you seek the more you find. A mile walk beyond the city limits will give you all the material you need for a week's recreation. It is not necessary to make drudgery of the technique of this science. If you are not impatient, it almost comes to you without your seeking. Here is a way for you to do it. Get Wood's Botany and read carefully the part on Structural Botany. This will make you a little familiar with the technical terms. You'll get fully acquainted with them by having to refer to them in analyzing plants. An alphabetical glossary in the book will refer you to the proper paragraph for each term. Next, get a collecting box (\$1.75) and a plant press (\$2.50). Both may be had from Queen & Co., Philadelphia. All the tools you need are a needle and a lens arranged so that you can either use it offhand or fixed on a stand, for dissecting flowers; \$1.65 buys a very convenient article.

Now go out and collect all you see. Few things will strike you at first, but by and by you will notice anything uncommon fifty feet away. Take a few specimens of any growing plant you run across. Put them in your botany box, where they will keep fresh for several days. When you reach home press one specimen of each kind at once, and when you find time sit down and look at your other specimens critically. Take those first which seem the least complicated and analyze them. If you find the name, so much the better. Put it down in a book, giving also the family it belongs to. You will soon find that you do not always have plain sailing. You find yourself stalled in the midst of the key by its referring to the ovary, which in your specimen is too undeveloped to give information, or by referring to the fruit, which will not be in condition for several months. Don't be discouraged; make a memorandum of such plant, give it a number, stating, too, just how far you have gone with it. You have a pressed specimen. This you will mount, as directed later; on the mount you will give the number corresponding to that in your memorandum books. This enables you to go on with it later in the season. You will find plants out of which you can make nothing. Lay the mounted specimens on one side. Sooner or later you will come across a clue. After one sea-

son's work you will be able to see at a glance to just what family a plant belongs.

Let us revert to the plants put into the press. Set the press in the sun or near a stove. The frailer plants will be dry in two days. Should you need the press for other purposes, remove the half-dry plants from it and lay them between newspapers. put a weight on them and leave them until they are thoroughly dry (otherwise they will wither). When ready to mount them get at any paper store 100 sheets, 24x36, 100-pound manila tag board (wholesale price, \$1.65). Have them cut each sheet into four equal parts (2x18). On these mount your plants, either by sticking them on with silicate of soda applied to the specimen, or by strips of paper which you fasten with liquid glue. If you have found the name of the plant, put it at the bottom of the mount, with any remarks, such as time of flowering, habitat, etc. At the top of the mount put the family. Arrange families in boxes. Any mistakes made or uncertainties will clear up when you look at them collectively on some bleak Winter day.

To go into detail. You will collect Cruciferae and Umbelliferae in flower early in June. It will be impossible to ascertain more than the family. But when you come across the ripe fruit in Fall you can match the plant with your herbarium specimen and find the genus and species. You will be quite at a loss at first in the family of grasses and sedges, but, having them all together in your herbarium, in flower as well as in seed, you will not find it impossible to tell which is which.

You will be amazed what charming things you will see when you look at a flower critically. One may almost say the less showy a flower the more wonderful its construction. A walk in the country will not be an aimless ramble any longer. You will find your hobby ready to be mounted the minute you leave your door. "Collecting something" is part of human nature. Plants are certainly the cheapest, most accessible and most varied article. In a professional way you will very soon commence to be interested in the descriptive botanical names of the U. S. P. and will learn to verify them. If you are anything of a microscopist you will pleasantly glide into pharmacognosy and plant physiology.

A PRETTY WINDOW EXPERIMENT

is described by the Indiana Pharmacist. Prepare a small beaker or jar full of cold saturated solution of Glauber's salt, and into the solution suspend by means of threads a kidney bean and a non-porous body such as a marble, stone, piece of glass, or other suitable material. Now cover the jar, and in a short time there will be seen radiating from the bean small crystals of sulphate of soda, which will increase and give the bean the aspect of a sea-urchin, while the non-porous body remains untouched. The bean appears to have a special partiality for the crystals, which is due in fact to the absorption of water by the bean, but not of the salt. In this way, a super-saturated solution is formed in the immediate neighborhood of the bean, and the crystals, in forming, attach themselves to its surface.

SIX MONTHS IN A FRENCH PHARMACY.

About this time last year, fired by the glowing pictures which I had seen painted from time to time in after-dinner speeches and conference orations by those in authority over us as to the enviable position of that much-protected and professional individual, the foreign pharmacist, I decided to make an attempt to get into the enemy's country, and, from the attitude of an assistant's position, spy out the land. Of course, I did not for one moment doubt the accuracy of the fairy stories I had heard concerning the entire superiority of the foreign article over the commoner English product, for, as all the adherents to the Pharmaceutical Society should do, I implicitly believed all that my mentors uttered, and allowed that the one thing necessary to pharmaceutical salvation was to go and imitate our fortunate foreign brethren as much as possible, and by contact with them acquire a little of their much-lauded superiority.

With this idea in my mind I decided to locate myself in a foreign pharmacy for six or more months, and to this end I advertised in the *Chemist and Druggist* for a position in France, as I possessed a good knowledge of the Gallic tongue. On going through the answers which I received, one presented itself which seemed to be the very thing—a small pharmacy in a fashionable suburb between Paris and St. Germain. The salary was small, as there were no English customers, but it seemed quite enough for a man of modest tastes, so I made up my mind to go, feeling sure, from the fact that my future master was a "pharmacie de la Ire classe" and "ex-Interne des Hopitaux de Paris," that I had made a good choice, an opinion which was amply justified by further acquaintance.

The pharmacy had a pleasing exterior, sufficiently professional to please the most exacting; advertisements and goods on show were conspicuous by their absence, and the only means of recognizing it as the abode of pharmacy was the presence of one or two of the familiar carboys of colored water and some vases of specimens. On entering, the greeting of my future "patron" was all that one could desire. The interior of the pharmacy was quite different from what we are accustomed to. There was no counter. The patron's desk, or "la caisse," took its place. This "caisse" had quite an ecclesiastical appearance, its sober coloring of black and gold and the carved work round the top gave it the air of a pulpit, whilst near to it was a smaller and similar erection for the deputy or clerk. At the opposite end of the shop—I beg its pardon, the pharmacy—was the dispensing pharmacy, and behind it a glazed door with tinted glass, leading into the "laboratoire." Over this door the imitation bronze bust of a patriarchal individual superinscribed "Hippocrate" looked condescendingly down on his disciples with a high and lofty air, as if he had just administered to them the Hippocratic oath.

The bottles, or shop rounds, were all capped with ornamental tin tops, only such as contained alkalies or acids being

*A paper read by Mr. Harold Wyatt, Jr., at a meeting of the Liverpool Pharmaceutical Students' Society. Reprinted from *Ch. and Dr.*

stopped; all the others were corked. The tables were in Latin, those of the wide-mouthed bottles being stuck inside. The ointment pots were of a somewhat fanciful design, with a burnt-in portrait of Galen or some such ancient pill-pounder on the front. The laboratoire—or, as we would call it, the back shop—contained a fair assortment of funnels, presses, and displacement apparatus, and in a small cupboard saccharometers, urinometers, and a set of burettes, as well as some very neat evaporating capsules made of solid nickel, which I afterward found very useful and convenient at the dispensing counter. The cellar, or "la cave," where the mineral waters, oils, fluid extracts, and perfumed waters were kept, was reached from the laboratoire by stone steps, up and down which I traveled during my stay about sixty times a day. A fine, well-kept garden lay behind the house, filled with fruit trees, and, indeed, a little of everything, after the style of the "Swiss Family Robinson's" Island, minus the zoological specimens. At one corner was an Oriental-looking kioski, rejoicing in the name of "Le Pavillon," used as a Summer drawing room, and at the top of the garden behind some small fir trees a little cottage, consisting of three rooms, a baignoir, or bathroom, on one side, a storeroom at the other and between a little bedroom, designed for the reception of the foreigner (myself).

From previous experience during several cycling tours in the north of France my capacity for surprise at novel arrangements on the part of the "darned moussee" was somewhat blunted; still the idea of putting such a prosaic creature as a chemist's assistant in a Fair Rosamond's bower non-plussed me not a little. My "toolhouse," as an irreverent brother dubbed it, besides its novelty, had many advantages, which I discovered as time went on, not the least being its distance from the pharmacy, a space the "sonnette de nuit" could not bridge, rang it never so loudly.

The "patron," in showing me my domicile, poetically remarked that I should be awakened in the morning by the "doux gazouillement des oiseaux et le chant bruyant de notre coq"—the warbling of the birds and the noisy crow of the cock. He added that the perfume of the lilacs, plinks and wall flowers would mount even to my room, where I should be like "mild lord Anglairs" in his country residence, but minus the luxury of carpets, hangings or rent.

All of this was true, except that the cock was a little ill-regulated, suffering from sonnambulism, when he used to crow at the moon, under the impression it was dawn breaking. Then the poetical aspect of the picture faded somewhat, and I felt a desire to arise and hush his joyous chant.

Business began in the pharmacy every morning at 6 o'clock, when the porter, or "garçon de laboratoire," to give him his awe-inspiring French appellation, came out and opened the doors. I was supposed to be in at 7 o'clock ready for work, of which we had even at that early hour plenty, for the market took place every Tuesday and Saturday, and, moreover, the inhabitants were very religious so

far as attending early mass went, and they dropped in on their way back, our establishment being on the highway to the church. These early customers usually wanted mineral purgative waters, the favorites of which were Janos Rubinat, Montmirail, Eau di Glauber and Carabana, and doses of Glauber's salt and Sel de Sedlitz, Epsom salts, as well as quite a respectable quantity of castor oil. The doses of these were surprisingly large—from 30 to 60 grammes (1 to 2 ounces) of the salts, and from 40 to 60 grammes (1-2 to 2 ounces) of the oil being usually taken, and then a small foot bath of Bouillon d'oseille to keep up the action. A whole hottie of Rubinat or Carabana was the dose, but, then, the bottles of Rubinat were only a third of the size of those sold in England. The wealthier customers usually took "Limonade Purgative," similar to our lit. mag. cit. effervesce, a dose containing about 30, 40 or even 60 grammes of true citrate of magnesia—a very palatable preparation and elegant looking, for it was set out in small special bottles, like miniature champagne bottles, with tin foil round the neck.

We breakfasted at 8, after which we had usually a brisk run of business until 12, when we lunched, and could then take it easy for a couple of hours, another rush of work taking place from about 5 to 7, after which we dined, and finally closed the pharmacy shortly after 9. This was the routine each of the seven days, for Sunday was just as busy as a week day, but I got off one-half day a week and for a couple of hours on Sunday, so that I did not do so badly as many "eleves" in other places. The methods of working were, of course, entirely different to those I had previously been used to, so that is was, as the patron said, a second apprenticeship I had to serve. In dispensing all substances, solids and liquids were weighed, the bottle being placed on balance, counterpoised by means of shot, and then the ingredients of the prescription or "ordonnance" added. As will be seen at once, the volume varied with the density of the liquids used, and as the quantities were never ordered, as in England, "add so-and-so," there were continual bothers with fractious customers because their bottles were not filled as full as they expected. The only argument for weighing offered was the self-evident truth that given weights are constant, and, therefore, accurate, while volumes vary with the temperature—a scientific theory, no doubt, but one which fails ignominiously in practice, for the simple reason that the mixtures are taken by measure, and, therefore, whatever slight advantage it might have been to make them by weight is entirely thrown away by the method of administering the finished product.

One very convincing reason for adopting this continental fashion was once given to me, and that was that it saved the washing of measures, but even this merit did not raise it in my estimation. The question of time is not of much importance, as by practice I found that there was not much to choose between our system and the French. Even the Codex tacitly admits that small quantities of potent remedies are more accurately

measured than weighed, for there is a pipette or "compte goutte" ordered for measuring these.

One thing struck me especially, and that was the large use of herbs by the French pharmacist—they were sold loose and in packets to an extent which would surprise the English chemist. Those most in demand were chamomile, marsh-mallow, violets, roses, red poppy, cat's-foot (*Opinaphium dolicum*), colt's-foot, mullein, elder-flowers, mellilot, arnica, borage, lavender, the fruits of the Winter cherry (*Physalis alkekengi*), and of the ordinary anise and the star anise, the roots of the parsley, asparagus, elecampane, chlicory, couch-grass, comfrey (*Symphytum off.*) and houndstongue. Large use was made of the leaves of absinth, anemone, belladonna, centaury, hyssop and mint. Cherry stalks were also in demand.

The extract theriaca, consisting of fifty-seven ingredients, I found was very popular, and ext. discordium, with seventeen ingredients, seemed to hold a good position in public esteem.

The tinctures were simply made by maceration, and were not made up to any given quantity, and in addition to the ordinary preparations I found that there were also "alcooclitures" or tinctures made from fresh plants, such as aconite, arnica, anemone leaves, belladonna leaves, etc.

As to syrups, their name is legion, and they constitute a large proportion of the stock of a continental pharmacist. The making of pills did not strike me as being perfect in any sense, and I fancy that I have left behind me much better methods in the pharmacy than I found, but while the pill of the pharmacy leaves much to be desired, I may say I saw some capital pills made by a Parisian house, where the name of the pill had been legibly stamped upon each one. They were well made, and were a decided novelty. While they do not excel as pill-makers, they put up an enormous number of cachets, and this is most puzzling at first to the novice. Many ingenious machines are made for filling them, etc., but once the practice is acquired, they can be rapidly prepared.

Suppositories and kindred preparations can be subjected to the same criticism, as I found that they were invariably lacking in finish and neatness compared with the English article. The sizes were also much larger than we are accustomed to use, and seemed to harmonize in proportion with the doses of purgatives to which I have already referred.

In conclusion I must say that my stay in "La Belle France" was, on the whole, a most happy and profitable one. I learned much that was interesting and valuable to me as a pharmacist, and at the same time had the privilege of residing for some time in a foreign country and forming associations which will afford food for pleasant recollections for many years to come. Given a fair knowledge of the language, I can strongly recommend any Englishman to repeat my experiences.

During the month of March, 1894, the United States imported perfumes, cosmetics and toilet preparations amounting to \$33,658 against \$90,338 for the corresponding period of 1893. The exports of the same class of goods during the same period aggregated \$22,428 for 1894 against \$25,496 for 1893.

THE BACTERIA OF WATER.

By M. L. Grimbert.

It is not very many years ago that the only method of determining the purity of water was to subject it to chemical analysis; but water may afford no indication of the presence of mineral salts, nor even of organic matter; it may, indeed, present all the appearance of distilled water, and be declared by the chemist to be of equal purity, but may, nevertheless, on investigation by the bacteriologist, be found to be impregnated with the germs of fatal disease.

It is admitted, in principle, that all waters contain bacteria of some sort, with the exception of springs coming from a great depth, which have been deprived of the germs in the original source by filtration through the soil. The rain as it falls is permeated with microbes taken up in the atmosphere, and even spring water after it comes to the surface is soon im-

pregnated with decomposing animal refuse from various sources, constituting a favorable medium for the rapid multiplication of disease germs.

Before submitting a sample of water to bacteriological analysis, the first point to be attended to is to heat the bottle in which it is to be tested to a temperature of 212 degrees Fahrenheit, to destroy any germs it may contain. The sample must then be examined at once for its bacterial contents, because multiplication is extremely rapid. A sample of water from the Vanna, which contained fifty-six bacteria per centimeter when drawn, contained 22,140 after twenty-four hours, and 500,000 after three days. At low temperatures the bacteria cease to multiply.

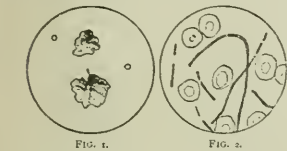


FIG. 1.

FIG. 2.

Two methods are employed for the enumeration of bacteria, depending on whether one adopts a liquid or a solid medium. The adoption of a liquid medium is Pasteur's, but it has been employed by Miquel since 1873. The water

the water diluted as above described, or not diluted, according to circumstances, and after intimate mixture this gelatin be poured on a glass plate to cool, it will solidify on cooling and imprison the germs contained in the water. Each microbe thus isolated begins to multiply at once and to give rise to spots in the gelatin more or less apparent, and of a form and as-

pect varying with the species. These are called colonies (Fig. 1). After a certain time there will be as many of these colonies in the gelatin as there were individual microbes in the cubic centimeter of water. This system appears much simpler than Pasteur's, but it has some serious drawbacks. The gelatin is liable to liquefy at a temperature above 52 degrees, and some microbes have the property of liquifying gelatin.

From experiments made by Miquel it appears that the number of microbes in a given sample of water increases with its impurity, and that the water, whether of rivers or of springs, is found most impregnated during the rainy season. Ice is found to be impregnated with the microbes that were in the water; most bacteria, whether pathogenic or not, being capable of withstanding a great degree of cold.

But the number of microbes is a matter of little significance in comparison with their character. The enormous rapidity of increase, under favorable conditions, is such that if pathogenic germs are pres-



FIG. 7.

FIG. 8.

ent their number is a matter of only secondary consideration.

The principal pathogenic microbes which have been identified are here illustrated. The *Vibrio septicus* (Fig. 2) is the cause of gangrene; the bacillus of tetanus (Fig. 3) exists normally in the soil; the *Staphylococcus pyogenes* (Fig. 4) resembles a bunch of grapes and is found for the most part in purulent ulcers, abscesses, whitlows, etc. The bacillus tuberculosis (Fig. 5) is the cause of consumption. Their spores are sometimes found in the waters of certain meadows where diseased animals have been buried, and similarly in some wells. The bacillus of typhus (Fig. 6) does not liquify gelatin. Its movements are very lively, and when largely magnified (B), it is seen to be armed with long vibratory cilia. The *Bacterium coli commune* (Fig. 7), also furnished with vibratory cilia, is not unlike the last named; but its presence in water, although evidence of contamination by sewage, is of no very grave significance. The *Bacillus virgale* (Fig. 8) is the vibrio of cholera

morbus, and is found in the water of certain Indian rivers. Fig. 9 represents a series of colonies of this bacillus in gelatin, reduced to about one-fourth the natural size.—(Revue Eneye. Translation in Literary Digest.)



FIG. 9.

[Written for The Era.]

PHARMACY IN AUSTRALIA.

It will surprise you to know that although the colony of New South Wales is 105 years old, being the parent of the Australasian group, she has no Pharmacy act and no proper Medical act. In 1876 the pharmacists contrived to induce the then Government to pass what is known as "The Sale and Use of Poisons Act," and notwithstanding all the pressure brought to bear upon successive governments, a comprehensive pharmacy bill has never yet seen the light of Parliament. The moving spirits among the drug men who are registered under the Poisons act set to work a few years ago and drafted a bill, which is now in the hands of the Dibbs Government, and from present appearances—the triennial term of Parliament being all but run out—it is more than likely that it will remain in the background until it is nanded by the next or some future House. In the mean time qualified men from adjoining colonies and foreign countries are debarred registration by the Pharmacy Board, who are forced "with regret" to carry out the unjust provisions of the Poisons act. Now, you will see at a glance how narrow-minded an act this is. The qualifications for registration are three in number, viz.: 1, "Duly admitted pharmaceutical chemists of Great Britain or licentiates of the Apothecaries' Halls of London or Dublin;" 2, "Those who were carrying on the business of a chemist and druggist in New South Wales prior to 1878," and 3, "Apprentices and assistants (of three years) in New South Wales who pass the examination of the Pharmaceutical Society." So that, apart from Great Britain, every other country in the world is shut out, and there isn't even reciprocal relations with the colonies of the group, or the option of going up for examination left to any person outside of her territory. It is an odd circumstance that, while the Poisons act lays down such hard and fast rules for the registration of chemists and druggists, there is absolutely no power to stop any person from opening a shop, putting up his name as a chemist and druggist and dispensing in the usual way, but if he be detected selling the scheduled poisons he is liable to a penalty not exceeding twenty pounds (£20).



FIG. 3.

FIG. 4.

to be examined is diluted to one-tenth, one-hundredth, one-thousandth, etc., with sterilized water. This method, although it has given very excellent results in the hands of its author, is fast giving place to the system of culture in solid media, invented by Koch. The medium employed is a gelatin solution of such a strength that it will solidify at ordinary temperatures, but remain liquid at a temperature ranging from 100 to 110 degrees F. This is what is known as a nutrient gelatin culture. If to a small volume of this liquid gelatin be added a cubic centimeter of

The majority of qualified men who are refused registration in New South Wales do not avail themselves of the weaknesses of the Poisons act as they might do. Doubtless this is partly owing to sentimental feelings regarding the honor of their profession and the indignity of carrying on a business without the stamp of the authorities. The charlatans, however, go in extensively for the trade, and the result is that the city of Sydney is the great quackery seat of the Sunny South. It is only on rare occasions that they are bowled out by the police for selling poisons, and, the fines inflicted being on the lower scale, they can afford to laugh in their sleeves at the Poisons act. Perhaps the only redeeming feature of the Poisons act is that it gives the Pharmaceutical Society the power of conducting two examinations, viz.: 1, preliminary (for apprenticeship); 2, final (for registration). In the first examination the youths, before being apprenticed, must pass a fair school examination, including Latin, but in the final a very high standard is required, so high, indeed, that only about 30 per cent. get through it. In the colony of Victoria the standard is even higher than in New South Wales, and this is accounted for by the fact that in Melbourne (the capital) they have a properly constituted pharmaceutical college, with an English professor at its head. None of the other colonies can vie with "Marvelous Melbourne" in this respect. It does seem a strange thing that New South Wales should be the only British possession of any importance minus a Pharmacy act, while she is surrounded with perfect pieces of legislative machinery in Victoria, Queensland and South Australia.

A few words about the New South Wales Medical bill will not be out of place here, seeing that the high and honored professions of physicians and surgeons have, in connection with their Medical bill, been treated in much the same way as the pharmacists. Every Parliament for upward of ten years past has been urged to pass a medical act that will do away with quackery once and for all time, but it has not yet found a place among the statutes of New South Wales. When the bill was first introduced it was thought to be of too drastic a character altogether, and the influence worked by the quacks settled its pretensions pretty quickly. Of late years the unqualified and incompetent practitioners have had a run of bad luck, and not a few of them are now serving long terms of imprisonment for causing the deaths of patients. The exposures made in these cases and the lamentable ignorance displayed by the so-called "doctors" have at last opened the eyes of the public to the dangers of quackery, and there is little doubt that the Medical bill now before Parliament will become law before the end of June. Its provisions completely strangle every form of medical and surgical humbug. In this matter also the mother colony has, as usual, been lagging behind her much younger offshoots. Instead of setting them an example. The colony of Victoria squelched the quack doctor ages ago, and her laws are so powerful and far-reaching that a qualified practitioner who is only "surgeon" dare not style himself "doctor."

With an idea that matters in the drug and chemical line from a commercial standpoint possess a reciprocal interest for the inhabitants of two countries which are very nearly antipodal, an illustration is presented herewith of the patent and sundry department of a representative New Zealand firm, Kempthorne, Prosser & Co.'s New Zealand Drug Co., Dunedin. This company had its inception over thirty years ago in the wholesale drug firm of Youngman & Co., at Otago, who were later succeeded by the present proprietors, who in 1878 organized a limited liability company for the manufacture of heavy chemicals, acids, ammonia, linseed oil and manures, with a capital stock of £200,000 sterling, of which £57,604 has been paid in. Besides extensive chemical works at Burnside, the company owns a factory at Otago, where they manufacture a line of proprietary articles, and they have warehouses in nearly all the important towns of New Zealand and operate other extensive chemical works at Westfield. The prosperity of the company may be estimated by the fact that over £93,000 has been paid shareholders in dividends since its organization.

The president of the Pharmacy Board and Pharmaceutical Society of New South Wales, H. R. Brothwood, was sued recently in the law courts by a married woman for negligence in dispensing a prescription, and she claimed £200 damages. She had been suffering from internal inflammation, and her doctor prescribed bismuth, catechu and morphia. Upon analysis, the unused portion of the medicine proved that the full bottle had only contained ten instead of eighteen grains of bismuth. The woman's evidence was a highly varnished and exaggerated tale of pains and suffering brought on by the medicine, and subsequent incapacity to perform her household duties. The doctor who prescribed the medicine proved conclusively that the pains complained of were not caused by the medicine at all, and her case for damages fairly broke down. Mr. Brothwood, relying upon this evidence to win him the case, made no defense, but on the analyst's evidence the Judge was obliged to give the plaintiff a verdict for 1 shilling and 9 pence, the price of the medicine. The druggists look upon the action as an attempt to levy "blackmail," and they are trying to devise some means of safeguarding themselves in future. The liq. bismuth used by Mr. Brothwood was bought in the usual way from a leading wholesale house.

The nuns at the Wellington Convent, New Zealand, are manufacturing large quantities of Mother Aubert's remedies, which were advertised extensively some time back. Sister Mary Joseph Aubert, the reverend mother of the convent, is an elderly Frenchwoman of great talent, and she claims to have discovered some splendid medicinal extracts from plants indigenous to Maoriland. Eight of the medicines are named in the Maori tongue—tatara, marupa, kataka, paramo, parupou, mopere, natanata and karana. She also distills the enca'yptus. In 1880 she made a seven years' contract with Kempthorne, Prosser & Co., wholesale druggists of New Zealand, to supply annually thirty-five gallons of marupa, paramo,

karana and natanata. The contract was broken by the firm after the first year, and the reverend mother took the matter into court, claiming £500 damages. The defense was that some of the medicines fermented and became unmarketable, and that the firm had lost considerably by the agreement. Her answer to this was that the preparations had been diluted, contrary to her instructions. The Chief Justice, in deciding the case, said it was clear that the plaintiff had carried out her part of the agreement, and awarded her £210, with costs.

Pears' Soap Company have secured a great victory over a local manufacturer named Field, who hails from Hamburg. It was incontestably proved in the Court of Equity that Field was putting up an inferior and cheap transparent soap in a wrapper identical with Pears', calculated to deceive the public. The only difference in the wrappers was the names "Pears" and "Field." The Injunction applied for was unhesitatingly granted by the Chief Justice in Equity.

The Victorian Board of Pharmacy has gained convictions against a great number of "Herbalists" and "Healers" for selling pills composed of aloes, iron and some oily substance. One of the principal offenders, Elizabeth Gould, who styled herself "American Herbalist," had been doing a profitable business in "ladies' irregularity" and getting ten shillings and six pence for a small box of pills. It was a very gross case, and she was fined heavily. Similar offenders in future will be sent to jail, in addition to heavy fines. The druggists of Victoria are co-operating for the wholesale prosecution of all grocers and other tradespeople who offer for sale any preparation of drugs or medicines, patent or otherwise, and it appears from the law that they have ample powers to carry out their intentions.

A pharmacist named William Paul Walkley Green was sentenced to death in Melbourne last month for performing an operation for abortion on a girl named Elizabeth Coade, who died in his house soon after the instrument had been used. He had practically no defense to make. A recommendation to mercy and an influentially signed petition were the means of having the death sentence commuted to ten years' penal servitude. Just twelve months ago he was tried in Sydney on a similar charge, and had a very narrow escape. A Western Australian pharmacist, named William Chopin, is awaiting trial for a like offense.

Notwithstanding the stringency of the Poisons acts throughout the colonies, suicides by poisoning continue with unabated frequency. The favorite poisons used to be chlorodyne, carbolic acid and rough on rats; but latterly there has been quite a run on matchheads, which offer a striking example of the power of "fashion" over the female mind. Four women in Auckland, New Zealand, attempted self-destruction by this means last month. Three of them were saved by the use of the stomach pump, but the fourth died in great agony. There were also fatal cases in Sydney and Melbourne, the quantities taken being the heads of from two to six boxes of matches.



Sundry and Patent Department, New Zealand Drug Co.

Charles Dickenson, a well-known chemist of Great Britain and dispenser to the Sydney Hospital, died in a singular way through taking sp. am. arom. rather too freely. Up to a few weeks before his death he was a very temperate man, but a quarrel with his wife in the precincts of the hospital, in which a second lady figured, lost him his position, and he took to drinking. In trying to pull himself together one morning with strong doses of sp. am. arom. he gave signs of choking, and died before medical assistance was at hand. At first it was thought he had suicided, but this proved to be incorrect.

J. B. Montford, chemist, of Sydney, has disappeared mysteriously. He was last seen at a race meeting, and having won a good sum of money, it is thought he has met with foul play at the hands of thieves. There is no trace of him at all.

Charles Liversidge sued the Australian Drug Company last month for wrongful dismissal, and got a verdict for £200 damages. He was engaged by the company for three years as bottle finisher, at £4 per week and sixpence per gross commission, but was discharged before the expiration of the time for incompetency. It was proved in evidence that he was thoroughly competent, but was not supplied with proper tools to do the work. On this ground he gained the action.

Under the Trade Mark act of South Australia, the Collector of Customs has issued a series of regulations of a very important character. The act prohibits the importation of goods having applied to them: (1) Forged trade marks, (2) False trade descriptions or marks, (3) Names

or descriptions otherwise illegal. Goods manufactured outside of South Australia must bear a definite indication of the country in which they are made.

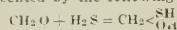
The Pharmacy Board of New Zealand is having a new pharmacy bill introduced to Parliament. It is framed on the lines of the Victorian Pharmacy act.

The adulteration of spirits with chemicals is a serious blot on the commercial morality of spirit merchants and publicans in Australia. Sulphuric acid is one of the commonest methods adopted, and it is no wonder that madness and lunacy through drink are so common. A Sydney publican has just been convicted of putting free sulphuric acid in whisky, which was found by the Government analyst to be forty-five degrees under proof. When the acid was separated from the spirit it charred straw and paper. The spirits consumed in New South Wales and Queensland are the most poisonous imaginable. In the interior of Queensland it is not uncommon for shearers and boundary riders (cowboys) to drink such mixtures as whisky and kerosene, whisky and turpentine and a popular stimulant—pain killer and Worcester sauce. This is no exaggeration of fact.

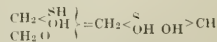
Thomas Jones, a registered Sydney pharmacist, has been sentenced to fourteen days' imprisonment for exposing for sale articles known as "pessaire preventif," "French letters" and "rubber rings with a serrated edge" attached to diagrams of the male and female generative organs. An appeal has been lodged against the conviction.

PHARMACY.

FORMALIN AS A DEODORIZING AGENT.—Schmidt has observed that on adding formalin to putrefied meat broth the offensive odor immediately disappears (Ph. Zts. Ph. Jr.). The same effect is produced on adding formalin to putrid urine. The smell of faeces is also destroyed by formalin. Further inquiry as to the chemical nature of the change thus produced showed that when a solution of sulphuretted hydrogen is shaken with a sufficient quantity of formalin, the odor of the gas disappears, and is replaced by a faint alliaceous smell, and it is suggested that the reaction taking place may be represented by the following equation:



Or when there is sufficient excess of formalin to remove the mercaptan smell



Methylmercaptan, CH_3SH which is according to Nencki, the chief cause of the odor of faeces, is rapidly decomposed by an excess of formalin. Ammonia and ammonia bases are immediately converted into inodoriferous products. Skatol is not acted upon by formalin unless hydrochloric acid is added, and then it is converted into an odorless product insoluble in water. In this respect, synthetic skatol differs from its isomer methylindol, which is immediately acted upon by formalin.

The trade in freckle lotions and similar toilet preparations is now in danger. The latest "fad"—the red parasol—is said to be a very efficient preventive of this unpleasant pigmentation.

EXPERIMENTS WITH LIQUID OXYGEN.—By means of the intense cold produced in his experiments in liquefying gases, combined with an exhaustion not before attained, Prof. Dewar has proved that mercury distills, as do phosphorus and sulphur, at the ordinary temperature when the vapor pressure is under the millionth of an atmosphere. The increasing indispersion shown by the chemical elements to combine with one another as the absolute zero is approached, was well illustrated in an experiment in which liquid oxygen was cooled—200 degrees C. On inserting a glowing piece of wood into the vessel above the liquid, it refused to burst into flame. Another interesting experiment was that of immersing an electric pile, composed of carbon and sodium, into liquid oxygen, almost immediately the electric current ceased, in consequence of the suspension of chemical action. Absolute alcohol, run upon the surface of liquid air, after rolling about in the spheroidal state, suddenly solidifies into a hard transparent ice, which rattles on the sides of the vacuum test-tube like marble. On lifting the solid alcohol out by means of a looped wire, the application of the flame of a Bunsen burner will not ignite it. After a time the solid melts and falls from the looped wire like thick syrup.

STERILIZATION BY FILTERS.—Filtration through porous filtering media has been considered an excellent method of removing from water any microbes it may contain, but nothing is less certain. As early as 1885, Bourquelot and Gallipe had protested against the supposed infallibility of these filters, finding as the result of their experiments that microbes could pass through the porous porcelain. Their conclusions have been confirmed by the experiments of Lacour-Eymard (Revue d'hygiène.) The results of introducing cultures of *Bacterium termo*, *B. coli commune*, and *Micrococcus prodigiosus*, into clean and sterilized Chamberland filters, are represented in the following table, the number of colonies per cubic centimetre of the filtered water, found at the end of the eighth to the fifteenth day respectively, being there given in columns:

Name of Organism.	8th to 10th day.	11th day.	12th day.	13th day.	14th day.	15th day.
<i>B. termo</i>	2 to 5	24	116			480
<i>B. coli commune</i>	Few		8	20	24	320
<i>M. prodigiosus</i>	—	—	48	169	234	380

These filters appear, therefore, to be far from affording absolute security; and the porous cylinders should be carefully cleaned and sterilized every three days at least, and a pressure of not more than two atmospheres be maintained, to insure even relative security. *Medicine moderne*. (Ph. Jr. and Trans.)

ODD BAROMETERS.—Two of the oddest and oddest forms of popular barometers, says a writer in the *London Spectator* (*Popular Science Monthly*), are the leech in a bottle and a frog on a ladder. Mr. Richard Inwards has seen an old Spanish drawing of nine positions of the leech, with verses describing its attitude and behavior before different kinds of weather. Dr. Merryweather of Whitby

contrived an apparatus by which one of twelve leeches confined in bottles rang a bell when a tempest was expected. When leeches were kept in every chemist's shop, and often in private houses, their behavior was the subject of constant observation; and it was generally noticed that in still weather, dry or wet, they remained at the bottom, but rose, often as much as twenty-four hours in advance, before a change; and in case of a thunder storm rose very quickly to the surface, descending when it had passed. The frog barometer, used in Germany and Switzerland, is a very simple apparatus, consisting of a jar of water, a frog and a little wooden stepladder. If the frog comes out and sits on the steps rain is expected. The weather glass dearest to the old-fashioned cottage in the last generation was the "old man and old woman," who came out of their rough-cast cottage in foul or fair weather respectively. This was almost the earliest of semi-scientific toys, and depended on the contracting of a piece of catgut fastened to a lever. The belief that bees will not fly before a shower is probably true and is the rational origin of the banging of trays and iron pots with a door key when bees are going to swarm. The insects are supposed to take this for thunder, and so settle close at hand, instead of swarming at a distance. Sprinkling water on them with a garden syringe often makes them settle at once. But no such ingenious process of rationalizing can be found for the belief that if the insect inside cuckoo spit lies head upward the Summer will be dry, though the increased worrying of horses by flies before rain and the rise of the gossamer before fine weather are abundantly confirmed by observation.

SYNTHETIC POWERS OF MICRO-ORGANISMS.—Among all living organisms, the micro-organisms, micrococci as well as bacteria, bacilli and spirilla, are especially remarkable for their intensity of chemical activity. Oxidations and decompositions, reductions and synthetic processes are effected on an extensive scale. (O. Loew, *Centralbl. f. Bakteriol.*, Ch. News.)

If we consider the destructive and the synthetic operations, we must arrive at the conclusion that the former are necessary for carrying on the latter. The former yield not only the forces necessary for the synthetic work, but also the suitable atomic groups. It is certainly a highly interesting question of physiological chemistry to study the relations of the two different directions and to elucidate which are the groups that serve for the synthetic work. We must first consider the chemical structure of the compounds that can serve as nutrients, we must investigate the causes that bring about the transformation of potential into actual energy, and we must recognize above all that the proteids of the living protoplasm are chemically distinct from those of the dead. We must acknowledge that when the labile character of the former changes by atomic migration into a stable one the death of the cells has come.

Nutritive and poisonous qualities are relative conceptions. Poisons may become nutrients for bacteria when highly diluted,

as phenol or acetic ether, and nutrients may become unfit for nutrition if the concentration reaches certain limits. Small chemical changes may convert a nutrient substance into a poison and, again, the poison into an indifferent substance.

As albuminous matter contains carbon, hydrogen, nitrogen, sulphur and oxygen, we have to consider principally the question which substances are suitable sources for the carbon, which for the nitrogen, which for the sulphur. Experiments lead to the following conclusions.

(1) As sources of carbon can be used in neutral or feebly alkaline solutions, alcohols, phenols, organic acids, ketones, aldehydes, carbohydrates, ethers and esters, many alkaloids.

(2) As sources of nitrogen can serve ammonium salts, nitriles, amido-acids, amines, ureas, guanidines, alkaloids, nitrates and nitrites.

(3) As sources of sulphur may serve sulphates, sulphites, polysulphites, sulphoacids, mercaptans, sulphones.

The nucleins which contain phosphoric acid in their molecule are here left out of consideration.

The following conclusions are drawn for most of the non-pathogenic microbes.

(1) Hydroxylated acids are better than the corresponding non-hydroxylated ones, e. g., lactic acid is better than propionic acid.

(2) Polyvalent alcohols are more favorable for the development than the corresponding monovalent alcohols, e. g., glycerin is better than propylic alcohol.

(3) The nutritive quality of the fatty acids and monovalent alcohols decreases with the increase of the number of carbon atoms in their molecules. Thus acetic acid is better than butyric acid.

(4) The entrance of aldehyde or ketone groups increases the nutritive properties; glucose is better than mannite.

(5) I have observed neither nutritious nor poisonous properties in picro-nitric acid, chloral hydrate, pinakon, ethylen-diamine, glyoxal, amido-acetal, Acetoxime, diacetonamin and meleinic acid are very poor nutrients. According to E. Meyer, mesaconic, succinic, paramethylsuccinic, dimethyl-succinic and benzoyl-succinic acids are not capable of serving as food.

(6) The poisonous properties are determined by the energy with which the unstable atoms of the living protoplasm are attacked.

DIPHTHERIA-ANTITOXINE.

This preparation is one lately introduced to the medical profession as a remedy for diphtheria, its method of action depending, it is said, upon the theory advanced by Richet, Henricourt and others that immunity from infectious diseases can be produced by the formation of protective substances in the blood by means of specific antitoxines. By the employment of virulent diphtheria cultivations antitoxine is obtained from the blood serum of animals. It has no accurately defined chemical characteristics, its value being determined by the smallest quantity which will exactly destroy a definite quantity of diphtheria virus. A prescribed quantity of the solution is injected beneath the skin of the back or breast by means of a sterilized syringe in the method of treatment.

FORMULARY AND QUESTION BOX.

The object of this department is to furnish our subscribers with reliable and tried formulas and to discuss questions relating to practical pharmacy, prescription work, dispensing difficulties, etc.

Requests for information are not acknowledged by mail and ANONYMOUS COMMUNICATIONS RECEIVE NO ATTENTION. To insure answer in the next number, queries should be in our hands ten days prior to the date of issue.

6223. *Interstate Registration.*

(L. P. C.)—See reply to query 6151, May 15, Era, page 466.

6224. *To Preserve Asparagus.*

(E. G. L.)—Wants a formula for preserving asparagus in sealed salt-mouth bottles for an unlimited time. He has tried one or two antiseptics, but has been unable to preserve it more than a short time. We would like the opinions of our readers upon the subject.

6225. *Discovery of Peroxide of Hydrogen.*

(J. L. G.)—So far as we are able to ascertain, peroxide of hydrogen was not known prior to 1818. All writers on chemistry are quite unanimous in ascribing its discovery to Thenard. Relative to the subject, we take the following paragraph from *Bache's Chemistry*, a book published in 1819: "Water is capable of combining with oxygen. This extraordinary discovery was made toward the close of the last year (1818), by Thenard, while pursuing his researches on the oxidizement (?) of different substances, to which he was led by previous discovery of the oxidized acids."

6226. *Color of Donovan's Solution.*

(E. R.)—The deepening of color noticed by you in this solution is due to the presence of free iodine. The proper hue may be restored and the free iodine recombined by triturating the solution with a little metallic mercury or finely powdered arsenic. The reason for such a procedure is apparent when it is remembered that Donovan's solution is made by triturating red mercuric iodide with arsenic iodide in distilled water until solution is effected. No chemical reaction takes place in the preparation of this solution. Although almost insoluble in water mercuric iodide is soluble in the solution of arsenic iodide. After triturating with the mercury or arsenic the solution should be carefully filtered.

6227. *Books on Venereal Diseases.*

(W. W. S.)—You can gain much historical information on the subject from a perusal of a French work by Buret, "Syphilis To-Day and Among the Ancients." An English translation may be obtained in three volumes, viz.: First, "Syphilis in Ancient and Prehistoric Times"; second, "Syphilis in the Middle Ages," and, third, "Syphilis in Modern Times." Price, \$1.25 per volume. For a small practical treatise in condensed form Culver and Hayden's "Manual of Venereal Diseases" is a good one; price, \$1.75. The following may be also quoted: Milton's "Gonorrhoea and Spermatorrhoea," price \$4; Sturgis's "Manual of Venereal Diseases," price, \$1.25; Hill & Cooper's "Venereal Diseases," price, \$1. Any or all of these books may be obtained through this office.

6228. *Thiersch's Powder.*

(W. E. B.)—As you have given us no information regarding this powder or its employment, we cannot but suspect that you refer to a mixture of powdered salicylic and boracic acids used to make the extensively used Thiersch's Antiseptic Solution (so named after a German surgeon). The formula reads:

Salicylic acid..... 2 parts.
Boracic acid..... 12 parts.
Water1,000 parts.

In the June 1, 1891, Era was published a formula for the preparation of this powder into compressed tablets, each one containing 14 grains salicylic acid and 84 grains of boracic acid, the proportions necessary to make a pint solution of the desired strength, as needed.

6229. *Nitrous Ether and Iodides.*

(E. R.)—Spirit of nitrous ether causes liberation of iodine from potassium iodide, the change being one of oxidation and reduction, nitric acid being produced from the acid radical of the nitrous ether. This change is facilitated by or dependent upon the solution being acid and as spirit of nitrous ether is nearly always acid from the formation of a little acetic acid or some nitrogen acid in it, you will generally notice a quick darkening of the solution when you attempt to mix soluble iodides with spirits of nitrous ether. The change does not take place in neutral or alkaline solution, and you should be careful to see that your nitrous ether is not acid when you attempt to dispense a mixture of this nature. Some dispensers add a little bi-carbonate of potassium until the acidity is neutralized, but it is better to employ a fresh article, which will require but little, perhaps no addition of alkali.

6230. *Glycerine as a Menstruum.*

(C. M. G.)—Glycerine cannot be used indiscriminately as a portion of the menstruum employed in making fluid extracts. The proportion in the menstruum must depend upon the nature of the drug itself and a proportion which is suitable in one instance would not be advisable in another. Glycerine has peculiar and high solvent power and it was found that while it would produce clear, elegant fluid extracts, they would be so loaded up with dissolved inert and worthless material that the value of the preparation was not at all enhanced. There has been much study of this subject of the use of glycerine and the formulas of the pharmacopoeia have been changed with each revision. By studying the present volume you will notice that various proportions are employed in the various instances. Both the new dispensaries have something to say upon the matter and we would suggest a reference to them.

6231. *Hair-Curling Preparation.*

(F. H. S.)—We cannot give you the formula you desire. Try one of the following:

(1)
Carbonate potash 2 drams.
Water of ammonia..... 1 dram.
Glycerine 4 drams.
Alcohol 12 drams.
Rose water 18 grains.
Mix together. Moisten the hair; adjust it loosely, when it curls upon drying.

(2)

Saccharated solution of
lime 2 drams.
Mucilage of acacia..... 4 drams.
Essence of rose..... ½ dram.
Water to make..... 6 ounces.

(3)

Mucilage of quince seed may be used as a bandoline, or tincture benzoin with a little washed sulphur and oil of sweet almonds.

(4)

Make a thick mucilage of gum tragacanth in rosewater. Add a small quantity of salicylic acid dissolved in alcohol as a preservative agent.

6232. *Cleaning Fluid.*

(C. L. K.) asks how he can dispense the following formula, taken from the April 15, 1892, Era, so as to make a clear and transparent mixture:

Benzine deodorized 1 quart.
Alcohol 1 ounce.
Bay rum..... ½ ounce.
Oil wintergreen..... ½ ounce.
Ammonia ½ ounce.
Chloroform ½ ounce.
Sulphuric ether ½ ounce.
Borax ½ dram.

As written, this formula will not make a transparent mixture, owing to the insolubility of the various ingredients in the benzine. Benzine does not dissolve or mix with solutions made wholly or in part with water, but is soluble in about 6 parts of alcohol and is readily miscible with chloroform and ether. Why not reorganize the formula, omitting those ingredients which are immiscible or insoluble with the benzine?

6233. *Precipitate in Castor Oil.*

(L. A. W.) complains that in a sample of castor oil which he has there developed a very appreciable white sediment in the bottom of the bottle, and that the longer it stands the greater in amount becomes the precipitate. This precipitate dissolves upon heating the oil. We can only surmise the cause of the trouble. Castor oil, if improperly prepared, is very apt to throw down a sediment upon exposure to low temperatures. The so-called cold-pressed oil is preferable to the hot-pressed in this particular. It is said that much of the American oil is prepared merely allowing it to stand for some time after expression and then drawing off for marketing, and that this quality is very apt to deposit a sediment upon standing, and it may be necessary to filter it through coarse paper before dispensing. In the preparation of castor oil the mixture of oil and water and the various impurities are allowed to stand, when separation leaves the oil on top, the mucilage and starch dissolved in the water, and the albumen coagulated by the heat. This albumen forms a layer between the oil and water, and in drawing off the oil it must not be drawn too closely. We are inclined to think that your sample is of a poorly prepared oil, though it may be a case of intentional adulteration, in which case careful chemical analysis would be necessary to determine the exact character of the adulterant. You can find considerable information in this line in the dispensaries.

6234. Liquid Mucilage Gum Arabic.

(C. H. C.)—Probably no better formula can be devised than that given in the U. S. Pharmacopœia. It can be very readily made by simply triturating the granulated gum arabic, to be had in the market, with the requisite quantity of water. Another method is by circulatory displacement, by suspending a bag of cheese cloth or muslin containing the whole gum in the proper amount of water near its upper surface. The water in contact with the gum dissolves some of it, the solution sinks to the bottom on account of its gravity, a proportionate amount of water rising at the same time. Solution continues until the water is saturated, or until the gum is all dissolved. The method, though very good, is practiced by few pharmacists; it deserves wider use. An improvement on the muslin or cloth is the use of a small glass funnel whose stem has been broken off, and of which there are usually a variety of sizes in drug stores, especially where the small boy predominates. The funnel containing the washed gum is suspended in the water in a way that its upper surface is level with the surface of the water, so that there can be a circulation through the funnel. The solution can be hurried by mixing the whole gum with clean large-grain gravel. This latter modification is especially applicable for making quantities larger than a pint. The vessel containing the water should be as deep as possible. Boric acid preserves the mucilage very well, and is usually not an objection.

6235. Dressing for Russet Shoes.

(T. B. C.)

(1)

Soft soap.....4 drams.
Linsed oil.....6 drams.
Annatto solution (in oil).....2 ounces.
Beeswax.....6 drams.
Turpentine.....2 ounces.
Water.....2 ounces.

Dissolve the soap in the water and add the annatto. Melt the wax in the oil and turpentine; then gradually stir in the soap solution. Keep stirred until cold.

(2)

Oil of turpentine.....20 parts.
Yellow wax.....9 parts.
Soap (ordinary bar).....1 part.
Boiling water.....20 parts.

Dissolve the wax in the turpentine by the aid of the water bath and the soap in the hot water. Mix in a hot mortar and agitate until cold.

(3)

Palm oil.....16 parts.
Common soap.....43 parts.
Oleic acid.....32 parts.
Glycerine.....10 parts.
Tannic acid.....1 part.

Melt the soap and palm oil together with a very gentle heat. When the soap is dissolved add the oleic acid. Dissolve the tannin in the glycerine, add to the hot mixture and stir until cold.

6236. Parrish's Compound Elixir of Buchu.

(F. J. S.) The following formula taken from Parrish's Pharmacy under the title Compound Fluid Extract of Buchu is probably the one you want.

Buchu, in coars*

Powder.....12 troy ounces.

Alcohol.....3 pints.

Water.....6 pints or sufficient.

Treat the leaves by maceration and displacement, first with a portion of the alcohol, and then with the remainder mixed with water; evaporate the resulting liquid by a gentle heat to three pints, and to this add:

Sugar.....2 1/2 pounds.

Continue the heat till it is dissolved, and after removing from the fire add:

Oil of cubeb.....1 fluid dram

Oil of juniper.....1 fluid dram.

Spirit nitrous ether.....12 fluid ounces.

Previously mixed, stir the whole together.

It will be perceived that this preparation differs from the official fluid extract, in containing sugar sufficient to impart sweetness to the taste, and the oils of cubeb and juniper and the spirit of nitrous ether, which are not only useful as therapeutic agents in the majority of cases in which cubeb would be used, but act as antiseptics, and would render the preparation permanent without the presence of alcohol or sugar. The dose is a fluid dram three or four times daily.

6237. Latin Abbreviations and the Metric System.

(Druggist) asks for an interpretation of the following prescription and the best method of compounding:

R

Sodii bromidum.....20

Potassi bromidum.....12

Elix. ammonii valerianatis.....100 c. c.

M. ft. sol.

Sig. S ij in wineglass of water t. i. d.

While not fully expressed, it is plain the prescriber wanted a mixture containing 20 grams of sodium bromide and 12 grams of potassium bromide in 100 cubic centimeters of elixir valerianate of ammonium. As to the interpretation of the directions to the patient there is but little difficulty experienced in making them out, the prescriber having used the sign to express the quantity to be taken, and the abbreviations of the Latin phrase *ter in die*, "three times a day," or "thrice daily." The directions should be written on the label, 2 teaspoonfuls (2 drams) in a wineglass of water three times a day.

Expressing the quantities in equivalents of English weights and measures, we have:

Sodium bromide.....308.6 grains

Potassium bromide.....156.1 grains

Elixir ammonium valer-

ianate.....3 fl. ozs., 183.1 minims

To dispense the prescription, first reduce the salts to fine powder, and triturate in a mortar with the elixir of ammonium valerianate until solution is effected.

6238. Violet Water.

(G. D. F.)

(1) Violet pomade.....6 pounds.

Alcohol.....1 gallon.

Macerate and digest in a closed vessel for a month and decant. Then add 3 ounces tincture orris root and 3 ounces spirit cassie to each pint.

(2) Extract violet (from po-

made).....2 fl. ounces.

Extract cassie (from po-

made).....6 fl. drams.

Spirit of rose.....6 fl. drams.

Cologne spirit.....1 pint.

(3) Extract violet (from po-

made).....3 fl. drams.

Extract cassie (from po-

made).....3 fl. drams.

Spirit of rose.....4 fl. drams.

Tincture of Florentine

orris.....4 fl. drams

Cologne spirit.....1 pint.

(4) Extract violet (from po-

made).....3 fl. ounces.

Extract cassie (from po-

made).....4 fl. ounces.

Tincture of orris root.....6 fl. ounces.

Extract musk.....1/2 fl. ounce.

Extract rose.....1/2 fl. ounce.

Extract jasmine.....5 fl. ounces.

Deodorized alcohol.....9 pints.

Distilled water.....1 1/2 pints.

Magnesium carbonate, q. s.

Mix. If cloudy, filter the product, previously mixed with the magnesium carbonate, and color slightly by the cautious addition of tincture of sage or tincture of common grass.

6239. Essence of Ginger.

(J. A. P.) We think you will find an excellent preparation in the following, taken from the Era Formulary:

(1)

Jamaica ginger, ground.....2 pounds.

Pumice stone, powdered.....2 ounces.

Lime, slaked.....2 ounces.

Dilute alcohol sufficient to make four pints. Rub the ginger with the pumice stone and lime, thoroughly mixed; then moisten with dilute alcohol until perfectly saturated; place the mixture in a narrow percolator, being careful not to use any force in packing, simply so that the menstruum will go through uniformly; lastly, add dilute alcohol and proceed until four pints of percolate are obtained. Allow the liquid to stand twenty-four hours and filter if necessary.

(2)

Fluid extract ginger (U.

S. P.).....4 fl. ounces.

Magnesium carbonate.

Water.

Alcohol. Of each a sufficient amount.

Evaporate the fluid extract to 1 fluid ounce; add enough magnesium carbonate to form a creamy mixture, then water to bring to the measure of 8 fluid ounces. Rub well together and filter. To the filtrate add enough alcohol to make a total of 16 fluid ounces. Color, if desirable, with caramel. See also formula No. 242 in National Formulary.

(3)

Ginger, unbleached.....4 ounces.

Calamus.....2 drams.

Canada snakeroot.....2 drams.

Cinnamon.....1 dram.

Mace.....1 dram.

Cloves.....1 dram.

Alcohol, enough to make.....16 ounces.

6240. Pills for Dogs.

(W. S. E.) We cannot give you the formula for the proprietary article you desire. Perhaps one of the following may be of service to you:

(1)

Cinchona, powdered.....4 drams.

Extract gentian.....2 drams.

Make into 40 pills and give 2 twice a day.

- (2)
Saccharated carbonate of
Iron 2 grains.
Extract nuxvomica..... 1/2 grain.
Extract gentian..... 2 grains.
Excipient q. s.

For 1 pill to be given daily.

Here is a formula for an alternative remedy:

- (3)
Mercury with chalk..... 30 grains.
Powdered aloes, Barba-
does..... 8 grains.
Extract of rhubarb..... 20 grains.
Sulphur..... 45 grains.
Excipient q. s.

Make into 15 pills; give 1 three times a week.

(4) Laxative pills.

- Blue mass..... 2 1/2 grains.
Extract colchicum acetic. 1/4 grain.
Extract hyoscyamus..... 1 grain.
Extract colocynth com-
pound 5 grains.
One pill to be given occasionally.

6241. Lavender Water.

(G. D. F.) Here are a number of formulas:

- (1)
Oil lavender flowers..... 4 drams.
Oil bergamot..... 1 dram.
Oil lemon, fresh..... 1 dram.
Oil cloves..... 5 drops.
Oil rose..... 3 drops.
Tincture civet..... 20 drops.
Extract ambergris..... 1/2 dram.
Balsam Peru..... 1 dram.
Alcohol, deodorized..... 15 ounces.
Orange flower water..... 1 ounce.

- (2)
Oil patchouly..... 1/2 dram.
Oil lavender flowers..... 1/2 ounce.
Oil cloves..... 15 drops.
Oil wintergreen..... 15 drops.
Oil bay leaves..... 1/2 dram.
Oil ylang ylang..... 10 drops.
Benzoic acid..... 1 dram.
Orange flower water..... 1 ounce.
Alcohol..... 1 pint.

- (3)
Oil lavender..... 8 ounces.
Essence musk..... 4 ounces.
Oil bergamot..... 1 1/2 ounces.
Alcohol..... 2 gallons.

- (4)
Oil lavender..... 4 ounces.
Magnesium carbonate..... 1 ounce.
Rose water..... 1 pint.
Deodorized alcohol..... 6 pints.
Triturate the oil with the carbonate, gradually adding the water and the alcohol, previously mixed, and filter. See also Era Formulary, formula Nos. 1535 to 1551 inclusive.

6242 Fat and Physiological Development.

(M. E. C.) No method of treatment can be devised nor can a special diet for the purpose of fattening one be outlined that will fit each individual case. The power to store up fat in adipose tissue is much more dependent on certain inborn qualities of the organism than it is on the kind of food. This is obvious when we remember that of two persons on the same diet and under the same circumstances, one will become fat while the other will remain lean. Theoretically foods rich in carbohydrates produce the greatest amount of fat. Further aids in

fattening may be found in providing repose for the body of such a kind that, while sufficient energy is expended to secure adequate digestion and absorption of food, all causes leading to an increase of the chemical changes taking place in the tissue by which energy is set free and leaves the body are avoided as much as possible. Physical development does not always mean an increase in one's adipose tissue. Far from it. It means physical training both physiological and hygienic. It means the development of the muscles, and has an important bearing on the internal organs and their functions as well. Poor food, undue mental strain, dejected spirits, etc., all tend to hinder physical development. Exercise, sunshine and fresh air all tend to strengthen the organism and bring it to its highest development. This condition does not always mean extraordinary physical endurance, but it does mean ease and grace of motion. Muscular capacity depends on muscular contractibility, and this condition is undoubtedly best promoted by frequent moderate exercise. It has been demonstrated beyond question that massage treatment will enlarge and strengthen the muscles, and nothing better promotes an independent "kneading" of them or is more conducive to the accelerated flow of blood and lymph than gymnastics practiced moderately.

Training not only increases the strength of the muscles, but results in their working with greater economy, and consequently less nutrition is called for.

One's physical training should be designed to further the proper exercise of the functions of all the organs and impart that healthy physiological condition indispensable to freedom and grace of motion. Consultation of competent authority alone can outline the proper method for you to follow. Unfortunately there are very few books which classify gymnastics according to their physiological importance, and are at the same time so written that they may be read with pleasure.

6243. Vanilla Extract from Vanilla Sugar.

(F. P. M. & W. A. C.)—There is no standard formula for vanilla sugar from which to prepare vanilla extract. To be sure, sugar is used in varying proportions in different formulas, for a double purpose, to facilitate powdering the vanilla and to give the resulting extract a sweet taste. The following formulas for extract vanilla have proven very satisfactory:

(1) Vanilla, good quality, 1 ounce; cut into small pieces and triturate with 2 ounces coarse granulated sugar. Place in a percolator and throw on dilute alcohol until a pint of tincture has passed, add this to 1 pint simple syrup and mix.

(2) Four ounces of Mexican vanilla beans, cut small, and granulated sugar are rubbed up thoroughly together, then moistened with 50 per cent. alcohol, packed in a percolator, macerated 24 hours, and then displaced at the rate of 30 drops per minute until 4 pints of extract are obtained.

- (3)
Vanilla..... 1-4 ounce.
Tonka..... 1-4 ounce.

Sugar, water, alcohol, of each a sufficient quantity.

Reduce the beans to a powder, with sugar gradually added to absorb the juice, pack in a prepared percolator, and extract with dilute alcohol, making one pint of the extract.

- (4) Hager gives this for vanilla sugar:
Vanilla..... 10 parts.
Milk sugar..... 20 parts.
Cane sugar..... 70 parts.
(5) The Pharmacopœia Gallica is authority for this one:
Vanilla..... 1 part.
Sugar..... 9 parts.

(6) Here is a formula in which vanillin is used:

- Crystallized vanillin..... 25 grams.
Sugar..... 95 grams.
Alcohol (absolute)..... 100 grams.

Dissolve the vanillin in the alcohol and pour the solution on the sugar, distributing as evenly as possible through it. Dry, powder and sift. This sugar contains 2-3 per cent. of vanillin and may be used in the same proportions as the finest vanilla.

(7) Vanilla essence.

- Crystallized vanillin..... 25 grams.
Absolute alcohol..... 400 grams.
Distilled water..... 455 grams.

6244. Formalin and Formic Aldehyde.

(F. M. E.)—Considerable information regarding this preparation may be found in the June 15, 1893, Era, page 563. It is said to be a solution containing from 35 to 40 per cent. of formic aldehyde, a substance discovered by A. W. Hoffman in 1869. According to the testimony of Stahl, Lieberich, Blum, Cohn and other investigators, formic aldehyde possesses great chemical activity in attacking albumenoid substances and rendering them unfit to enter into vital reactions. On account of this property the solution has been highly recommended as an antiseptic for sterilizing purposes in surgery, for the preservation of zoological specimens for museum purposes and as a general practical disinfectant. It has been employed in the Pathological Institute of Berlin for the preservation of anatomical preparations and cadavers.

FORMULAS.

6245. Roup Powder.

- Potassium chlorate 1 oz
Powdered cubes..... 1 oz
Powdered anise 2 oz
Powdered Iodine..... 1-2 ozs

Mix a teaspoonful with the food for 20 hens.

6246. Starch Gloss.

- Ch. and Dr. Dary.
Borax 4 parts
Gum arabic..... 1 part

6247. Saturated solution borax..... 2 parts
Tragacanth mucilage..... 1 part
Mix 1 tablespoonful to a pint of starch.

6248. Spermaceti 1 ounce
Gum arabic..... 1 ounce
Borax 1 ounce
Glycerine 2-3 ounces
Water 14-2 ounces
Powder the spermaceti with the borax, emulsify with the gum and water, and add the glycerine.

6240. **Papain Elixir.**

Ch. and Dr.

Papain	11.0
Glycerine	60.0
Sherry wine	150.0
Saccharin	0.4

Chloroform water, add to make 300 grammes. Keep for a week, shaking frequently, and then filter. A teaspoonful contains about 2 grains papain.

6250. **Tomato Sauce.**

Ripe tomatoes	3 dozen
Chill vinegar	1 pint
Garlic	1 ounce
Shallots	1 ounce
Common salt	2 ounces
Cayenne pepper	1-2 dram
Lemon juice	5 ounces

Put the tomatoes in a jar and warm in an oven till tender. Cool, skin and pulp the fruit and add to the liquor in a jar along with the rest of the ingredients. Mix well and bottle.

6251. **Tomato Ketchup.**

Take one bushel of ripe tomatoes, mash them in a basin or kettle, put them on the fire and reduce them to a pulp; strain this pulp through a hair sieve, in order to free it from the seeds and skins; then boil the pulp down to one-half its original bulk; then add one ounce of ground cloves and a quarter ounce each of ground mace, ginger and cayenne pepper and a small teaspoonful of fine salt; mix all well together, place on the fire and boil it two-thirds away, stirring continually with a long-handled wooden spatula, after which add one pint of the best wine or cider vinegar; boil and stir a few minutes longer, then remove and bottle; cork tightly and keep in a cool place.

CLEANING CHAMOIS LEATHER. One way is to place a wet towel on the face of the leather, and to allow it to remain three or four days, by which time all the dirt and grease will be softened, and it will be an easy task to rub it off by means of a sponge. When dry, the leather should be rubbed over with a little linseed oil, which will have the effect of softening it.

Another method is to rub the chamols well over with softsoap until it is thoroughly clean, and then to rinse in warm water to which soda has been added, employing also, if necessary, a little yellow soap. After rinsing, the leather should be wrung well in a soft towel and dried quickly, and then, even before it is perfectly dry, rubbed well in the hands to soften it.

To the carriage builder, the lint from the chamols leather is a perfect abomination, and it will be found to pay to have a set of leathers for each operation rather than to endeavor to use the same leather for all grades of the work. In the above directions it is well to point out that warm water does not mean hot water; nothing above lukewarm should be used, or the skin will become tough, thick and useless. When grease or paint has gotten practically makes it useless, proceed as follows: Soak the skin over night in a bucket of water to which has been added a little ammonia, then thoroughly rinse and wash with pure water with castile soap.

EXAMINATION QUESTIONS.

This Department is for the publication of questions and answers from our readers; the object being to place before them questions for self-examination and to indicate the directions in which study can be profitably carried on.

We solicit questions to which replies are desired, particularly questions suggested by personal experience and study.

Correct answers to the questions in each series will be published in a subsequent issue of the paper, as announced, together with the names of all persons sending us correct replies.

Write the number of the series at the top of your reply and write on one side of sheet only.

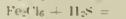
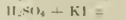
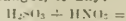
Address—EDITOR PHARMACEUTICAL ERA,
106 FULTON STREET, NEW YORK.

SERIES NO. 5.

Replies should reach us not later than July 15, 1894. Correct answers, together with the names of all persons answering correctly eight or more of the questions, will be published as soon thereafter as possible.

(1) How many grams of official acetic acid can be obtained from 500 grams of sugar of lead? How many grams of official sulphuric acid is required to decompose this amount of sugar of lead, and what would be the weight of the lead sulphate formed?

(2) What do you understand by the terms oxidation and reduction as employed in chemistry? Complete the following equations; noting the oxidation or reduction changes, if any:



(3) How many avoirdupois pounds of U. S. P. sodium carbonate are required to precipitate 100 troy pounds of calcium chloride?

(4) Given a mixture of copper acetate and silver nitrate in solution. Map out a scheme of qualitative analysis, which shall detect and identify these bases and acids and which shall guard against the presence of other bases and acids. Explain briefly the reason for each step in the analysis.

(5) Express this prescription in the metric system. Criticise it fully:

Quinine sulphate, 25 grains.

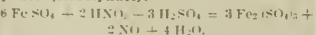
Sulphuric acid, 10 drops.

Potassium iodide, ½ dram.

Syrup of orange peel, 2 ounces.

Water enough to make 4 ounces.

(6) The following equation expresses the chemical change effected when ferrous sulphate is oxidized by nitric acid in presence of sulphuric acid to form ferric sulphate (tersulphate):



Using 150 grams of official ferrous sulphate, how many grams each of official nitric acid and official sulphuric acid will be required for complete oxidation and how many grams of tersulphate would be the theoretical yield? Write out the calculations in full and show the methods employed.

(7) In adjoining drawers in a drug store were kept respectively Glauber's salt and sal soda. In some way the labels have been removed and the druggist wishes to identify the contents of each drawer. How may he best do it?

(8) A druggist has two avoirdupois pounds of red cinchona bark which shows upon assay 2.5 per cent. of quinine alkaloid.

How many grains of official quinine sulphate should he theoretically be able to obtain from this bark? Exhibit the figures used in calculations.

(9) How would you distinguish between antipyrin and acetanilid? Between bismuth subnitrate and calomel?

(10) Convert the quantities in the following formula into their equivalents in apothecary's system.

Tincture of ferric chloride.....	1 cc.
Dilute acetic acid	1.5 cc.
Solution of ammonium acetate.....	10 cc.
Aromatic elixir	5 cc.
Glycerin	6 cc.
Water, sufficient to make.....	50 cc.
Point out the chemical reactions, if any, which take place.	

SUPERIOR POMADES.

Hyacinth Pomade.

Violet Fat (Pomade).....	150 parts
Jasmine Fat (Pomade).....	75 "
Jasmine Oil, Fatty.....	70 "
Cassia Oil.....	50 "
White Vaseline.....	10 "
Hyacinth Essence (Ext.).....	1-2 "

Violet Pomade.

Violet Fat (Pomade).....	2,000 parts
Cassia Pomade.....	750 "
Rose Pomade.....	500 "
Jasmine Oil, Fatty.....	700 "
Orange Oil, Fatty.....	500 "
Balsam Peru.....	8 "
Oil Geranium.....	1 "
White Vaseline.....	100 "

Tea Rose Pomade.

Rose Fat (Pomade).....	3,250 grms.
Jasmine Pomade.....	100 "
Rose Oil, Fatty.....	500 "
White Vaseline.....	100 "
Balsam Peru.....	5 "
Oil Geranium.....	10 "
Oil Cedarwood.....	5 "
*Portugal Oil.....	5 drops
Oil Citronella.....	5 "
Oil Lemon Grass.....	4 "
Raspberry Ether.....	6 "

May Bells Pomade.

Rose Pomade.....	1,500 parts
Cassia Pomade.....	1,000 "
Orange Pomade.....	500 "
Jasmine Oil, Fatty.....	750 "
White Vaseline, Liquid.....	50 "
Oil Coriander.....	10 "
Oil Palma Rosa.....	2 "
Oil Mace.....	1 "
Oil Ylang Ylang.....	1 "

These pomades are exquisite, but expensive, yet where there is a sale for them they yield good profit. They bring from 50 cents to \$1 an ounce, and a little ingenious advertising seems to create a paying demand for them.

TOXICITY OF ANTISEPTIC.—In *Nouv. rem. (Ph. Jr.)* Desessuelle and Charrin have compared the toxicity and bactericidal power of a number of recently introduced bodies derived from corrosive sublimate by the replacement of an equivalent of chlorine with equivalents of various phenols and naphthols. The results are presented in the following tables, the antiseptic and bactericidal power of corrosive sublimate itself being taken as 100.

Substance. Antiseptic Toxicity.	
Phenol sublimate	104
Mercury -hydroxy-phenolate	46
Phenol acetate mixed with mercury	41
Naphthol sublimate	31
Mercury b-naphtholate	25
Mercury acetate	61
	45.

NEWS COMMENT.

The Ale and Beef Manufacturing Co. of Rochester, N. Y., has been dissolved by order of the Court.

The druggists of Lewiston, Me., have combined and adopted a uniform price list on proprietary articles.

McArthur & Son, long-established druggists in Lincoln, Neb., have failed. Assets stated to exceed liabilities.

Three of Cincinnati's drug stores are owned and conducted by a young woman, and she is an aggressive cutter.

The California Board of Pharmacy is making it lively for unregistered pharmacists and those who have failed to renew their registration.

The members of the Dallas (Tex.) Pharmaceutical Society have agreed not to buy any goods from wholesale druggists who retail to outsiders.

Miss Nina Raleigh, employed in the wholesale drug house of Lamar & Sons, Macon, Ga., was horribly burned May 24 through the accidental explosion of an alcohol lamp.

The store of J. F. Albers, at Antigo, Wis., was recently visited by a sneak thief. The thief was traced through a Canadian \$1 bill and given thirty days in the county jail.

Druggist H. Elich of Evanston, Ill., has been convicted through the efforts of the Citizens' League for selling liquor in violation of the law. He was assessed fines aggregating \$350.

A Jersey City couple were married in a drug store on a recent Sunday night, and the druggist says that this is the tenth ceremony of that kind that has been celebrated in his place.

Senator Mills is said to haunt a Washington drug store and has gained a most conglomerate mass of information to assist him in his discussion of the chemical schedule of the tariff bill.

The 4-year-old son of Druggist James A. Cox of Utica, N. Y., while riding in the street on a tricycle was run over and killed by a coach. No complaint was made against the driver.

A woman recently sued four druggists in Marion, Iowa, for \$4,000 for selling liquor to her husband. The case against one of them has been concluded and a verdict rendered against him for \$500.

E. H. Richards has a new drug store at Cedar avenue and Jessie street, Cleveland, furnished and stocked by the Dawes Manufacturing Co., Lehn & Fink, Strong, Cobb & Co. and J. W. Tufts.

Fire in a drug store is a bad thing, but not worse than to have runaway horses of the fire engine dash through one's front window. Druggist F. W. Crist of Chillicothe, Ohio, suffered severely from such a visitation.

Theo Schultz, clerk in the drug store of F. W. Becker, Newark, N. J., had a desperate encounter with a burglar. He was severely injured, but succeeded in driving the intruder away, and the police later captured the thief.

It is related that in a Buffalo drug store a young lady customer for soda water, catching sight of an appeal from a fresh-air mission, heroically gave up her nickel to that charity and left the store without her favorite beverage.

The Chicago owners of a patented process for combining mineral and vegetable oils to produce a food product to compete with the various products of the packing houses claim to have refused a cash offer of \$2,000,000 for their rights.

Some burglars who entered W. C. Hambleton's drug store at Louisville, Ky., recently were evidently going to a picnic or intending to play penny ante, for they stole a lot of cigars, a dozen shirts, some cologne, soap and about a dollar in coppers.

The Medical College of South Carolina has revived its department of pharmacy, which was discontinued in 1885 after two years of existence. The pharmaceutical association of the State proposes to render its best aid in making the department efficient.

J. B. Ardis, druggist at Carroll's Prairie, Tex., has just completed a new building for his use, has enlarged and brightened up his stock, and says that he feels as if he had changed villages. He finds his trade more satisfactory than for three years past.

Druggist H. W. Tempany, in Flatbush, L. I., has been arrested for using the mails for fraudulent purposes. He advertised pills for sale and in each box placed a ticket which purported to be good for a chance at a house, piano, several gold prizes, etc. Unlucky customers made complaint.

George Barnes, druggist in Des Moines, Iowa, is under arrest in connection with the robbery of postage stamps from the Afton postoffice. It is stated in the local papers that it is suspected that he is at the head of a gang of postoffice thieves and that a number of prominent citizens of the city are implicated.

A petition is being circulated in Everett, Mass., to the effect that drug stores be permitted to do a general business on Sunday as well as in medicine, but the local paper points out that the signers are petitioning the officials to sanction the violation of State law. Petition for an alteration of the law is suggested.

H. A. Hill has been awarded \$3,000 damages in his suit for \$15,000 against the Meyer Brothers Drug Co. While employed in their Kansas City branch he was severely injured, losing one eye, through an explosion of chemicals, which he was attempting to remove under direction from a superior during the progress of a fire.

Some of the druggists of Baltimore are a little agitated over the ruling of the authorities that liquors cannot be sold even on physicians' prescriptions unless the druggist has paid the special tax under the internal revenue laws. Some twenty-five druggists have found it expedient to settle the threatened prosecution by procuring this special license.

E. E. BENJAMIN.

After a long and painful illness, Edmund E. Benjamin, a well-known dealer in chemical and pharmaceutical apparatus, died at his residence in New York on May 29, 1894. We append a brief notice of his career written by his son.

Edmund Burke Benjamin was born in East Bloomfield, N. Y., July 16, 1828. He was the second son of the Hon. Orson Benjamin, for many years Judge of the Probate Court, Ontario County, N. Y., and from whom he traced his descent back to John Benjamin, who settled near Boston in September, 1632. His great-grandfather, Capt. Nathan Benjamin, served in the war of the Revolution. At an early age he moved to Canandaigua, then one of the foremost towns in central New York, and received a classical education at the academy there. His father's family was a large one, and he left home when he was 16 to become a clerk in Rochester. Thence he went to Elmira, and finally to New York city. In 1854 he went to California, and was soon successfully established in business in San Francisco. After several ventures he became junior partner in the firm of Cameron, Whittier & Co. (now Whittier, Fuller & Co.), then and now the largest dealers in paints, oils and window glass on the Pacific coast. Falling health led to his withdrawal from active business in 1887, and he returned to New York. After two years spent in travel in Europe he purchased the business of G. Quettier, the oldest dealer in chemical and druggists' glassware in the United States. Under his management the business rapidly developed, and he soon numbered among his customers all of the larger colleges and universities in this country.

His enterprise manifested itself in the publication of a large cloth-bound catalogue in 1872, fully illustrated, which was the first of its kind issued in the United States. In 1876 his large exhibit at the World's Fair in Philadelphia received the only medal for similar wares. For twenty years his business remained the foremost of its kind, but toward 1890 his health again began to fail. Thereafter he was unable to give his attention satisfactorily to his affairs, and after seeking in vain for relief at the baths in Bohemia he withdrew entirely from business.

He was a prominent member of the Protestant Episcopal Church, and a liberal giver to its charities. For many years he was a fellow of the American Geographical Society and a member of the American Association for the Advancement of Science.

M. B.

Kansas City (Mo.) College of Pharmacy has appointed H. C. S. Hines of Independence, Mo., to fill the chair of materia-medica in that institution, recently vacated by Dr. Emory Lanphear. Dr. Lanphear removes to St. Louis to become professor of surgery in the College of Physicians and Surgeons.

NEW YORK.

New York, June 9.—Two gentlemen, wholesale druggists, rode downtown in an elevated train one morning last week—Saturday morning. One of these druggists came from Chicago, the other was a New Yorker. Each had a morning paper in his hand. They had not opened the newspapers, but were talking "shop." Said the Chicago man, "I know you New Yorkers are pushers, but you have no local pride. You care nothing for anything that is outside of your business."

"What are you talking about?" was the reply. "Why, we New Yorkers take just as much interest in local and national good government as you Chicago people." "Well, perhaps as individuals you do; that is, you go to the polls and vote on election day if you have the time and it doesn't rain. But now, as a business man, do you lend your firm name to reform movements; does the drug trade here take any side in local or national questions?"

"I think we do. In fact—well—perhaps I can't cite a case offhand, but we've got just as much interest in that sort of thing as any body of business men elsewhere."

The Chicago man smiled, but said nothing. Both opened their papers. Naturally, the first thing that caught their eyes was the report of the income tax meeting. Both began to read the story of the big protest at Carnegie Music Hall. The Chicago man looked down the many columns, then returned to the first page and skinned his eye down again. When he got to the end of the story he said "Humph," and with a shake of his head repeated his performance. His actions had attracted the attention of his friend, who finally asked, "What's the matter?"

"So you drug men are interested in all public questions, are you? Just find me a name, one single name, if you please, of a drug firm or a drug man in this city who was represented at the meeting at Carnegie Hall last night."

The New Yorker grabbed his paper and went through the report. He couldn't find one name. There was a great string of vice-presidents, many men had spoken, the banks, the insurance companies, the dry goods houses, the hardware people, all had been represented there, but, alas, not one drug man nor one drug firm was mentioned.

The Chicago man chuckled. The New Yorker crumpled up his paper, deposited it under the seat and wrapped himself in thought.

Perhaps it is unkind to continue on this line, but, really, have the drug trade men of this city done themselves credit? Have they, as a body, any interest in the great public questions of the day? If so, why on this occasion was it not shown? It cannot be possible that the drug men have no reason to worry over an income tax. It would be nothing short of an insult to suggest such a thing. The drug men are interested in that proposed tax, but they were not enterprising enough, public spirited enough to show it. Why not wake up.

Of what use is it to say that the Chamber of Commerce did not send an invitation to the drug section of the Board of

Trade to join in the protest? The drug men might rise above such neglect. A representation from the drug industry, one of the most solid, influential, when needs be, branches of trade in this city, would have been received with open arms. You know that. Isn't it a fine reflection on that splendid industry, therefore, to let reports be spread broadcast over the country of what action the bankers, the insurance men, the dry goods merchants and the hardware dealers, yes, even the hardware dealers, have taken on this question in the great city of New York, and not even a little mention of the drug trade? Will the antiquarian of the year 2900 say "there was no such thing as a drug man in 1894, for the public prints mention him not."

You will not find a man in the business but will admit that the drug trade business man takes little or no interest in anything outside of his shop and his home. He is absorbed in his own work, and prides himself on knowing how to attend to his own business and letting other people attend to theirs. But must it be said that as citizen he is worthless?

Words of praise continue to pour in regarding the excellence of the "Moving Day Number" of the Era. The best of all this praise is that which tells of increased business resulting from the advertisements in that splendid 40,000 edition. The Era man yesterday went into the office of Cushman Bros., the agents for manufacturers, on Hudson street. While there he was told that the firm was receiving letters from all over the country asking about their system and terms of business. Some of these letters came from Florida and California, and all were directly traceable to the advertisement and notice in the May Era. As a sample of the work the firm is doing, it may be said that in the month of May they sent out four carloads of Tanglefoot fly paper to points in and near this city. This, they think, is the largest quantity of that line of goods ever sent out within thirty days.

Some of the "boys" may want to know what the prospects for the next year's bowling tournament are. At present it is the idea that the season's bowling should begin about the 1st of October. If possible there should be twelve teams, six more than this last season. There seems to be little doubt that McKesson & Robbins will not have a team, but there is lots of time between now and October. However, even if they drop out there is a fair prospect of seven new teams, and the tournament ought to be a "hummer." All the prizes won in the recent games are now in the hands of the winners except in one case, and the team seems to have no desire to hurry in the matter. Mr. Sayre has the money and the team can get it when it wants it. If the association secures twelve teams next year the writer knows of at least one extra prize that will be offered. Particulars will be given later.

At the meeting of the New York County Branch of the Interstate Retail Druggists' League on June 1 officers for the ensuing year were elected as follows: President, A. M. Roney; Vice-President, T. J. Barnaby; Secre-

tary, T. O. Morrison; Treasurer, M. F. Bender, directors, Oscar Kress, Ernest Molwitz and O. C. Weinman. The branch will meet only once a month during July and August. A. C. Searles, Charles Osman and T. J. Barnaby were selected delegates to the Saratoga Convention of the New York State Pharmaceutical Association. Quite a number of new members were announced. On motion of T. B. Breen, the popular druggist at 2300 Seventh avenue, the following was adopted:

"Moved that Mr. Rontey communicate with President Canning stating his views as to the means which in his opinion will be most likely to bring about the accomplishment of the league plan, and requesting the national body to issue explanatory circulars of the plan for distribution among the entire retail drug trade of New York city, this being necessary in view of the fact that very few of the members are well posted regarding the details of the league platform." The new officers will be installed June 15.

Seabury & Johnson are to put in new machinery at their factory shortly.

Yancey Bartholow, vice-president of the Texas Drug Company, Dallas, Tex., was a visitor at The Era office on May 31.

Paul Monlux of the Deletrez Company sailed for Europe a week ago. He goes to Paris.

P. J. Torney, agent for W. H. Schiefelin & Co. in San Francisco, returned home on June 7.

Dr. Charles F. Chanlier of the N. Y. C. P. sailed for Europe on Saturday, June 2.

The German Apothecaries' Society will have its picnic some time this month at Lake Hopatcong.

Mr. Heebner, proprietor of a drug store at Lee, Mass., was in town the other day making calls on a number of friends.

S. D. Wadhams of W. R. Warner & Co. is doing Long Island. He will attend the State Pharmaceutical Association at Saratoga.

Brent Gool of the Carter Medicine Company and John W. Cox of the Antikamnia Company sailed for home on the 6th on the Germanic.

Peter R. Lance was in Cincinnati this week. He writes The Era that he had heard many pleasing comments on the "Moving Day Number."

Charles R. Parmelee of the E. M. Johnson Company is attending the Kentucky Medical Association at Shelbyville. He is expected back on Monday.

H. & H.'s note about the Drug Clerks' Club was received. Up to the present time all the replies to the notice have been favorable, but not numerous.

Dr. Arthur H. Elliott, Professor of Chemistry at the New York College of Pharmacy, has moved into his new house at Poughkeepsie for the Summer.

R. D. MacLeod, manager of the Boston house of the Whitney Glass Works, sailed for Europe last Wednesday. He will remain abroad for about ten weeks.

Oscar Goldman, who conducted a pharmacy very successfully at 165 Rivington street and who was recently married, has bought an interest in the firm of Englehardt & Huber, succeeding Mr. Huber, who will retire from the drug business.

O. F. Fuller, head of the Chicago house of Fuller & Fuller Company, was a visitor here last week. He came East on private business, and only remained a very short time.

Edward J. Bromberg, who formerly traveled for Beach & Clarridge of Boston, now has charge of the laboratory of E. P. Francis' bottling establishment in Fall River.

Unintentionally the name of Frank J. Herbig was omitted from the roll of honor of the graduating class of the New York College of Pharmacy in the account printed recently.

John McGarigle of Perry's Pharmacy, Sun Building, took a three days' trip down East last week. He visited Boston, Providence and Fall River and renewed many old friendships.

J. M. Grosvenor & Co. of Boston have sold to Johnson & Johnson the right to manufacture and sell Bell-Cap-Sic Plasters, but still retain the ownership of the trade-mark.

Dealers in druggists' sundries report an increased demand during the last two or three weeks. While not enough to cause anybody to go into ecstasies, this sign of improvement is certainly encouraging.

John Hollander, 18 years old, who claimed to be a clerk in a drug store, was fined \$10 in the Yorkville Police Court this week for disturbing a meeting of the Salvation Army.

One of Seabury's & Johnson's customers received the following order the other day: "Seabury's sulphur candles, disinfecting and death to all animals, from a chimpanzee to a nigger."

Joseph E. Cotty, managing director of Mansell, Hunt & Cotty Company, London, England, who has been making an extended trip in this country, sailed for home on the Umbria, June 9.

One of the happiest men in the trade who visit this city is Frederick B. Perry, the representative of Powers & Weightman. He is in town at present, and, as usual, has something pleasant to say to everybody.

W. Townley Case, traveling representative of C. F. Boehrlinger & Soehne, is here for a few days. Everybody is glad to see Mr. Case when he comes in from his trips, and the only regret is that he cannot stay in town longer.

The druggists of Brooklyn are glad the New York and Eastern Telegraph and Telephone Co. will be allowed to put its lines in that city. Perhaps now there will be some relief from the past outrageous conditions.

A Harlem druggist who has been in business at his present place for about a year says the month of May was the best he ever knew in the matter of receipts. There are very few druggists, however, who say the same.

R. R. Wanless has purchased the drug store at 322 Ninth avenue formerly kept by Pryor & Cameron. The latter will now devote their entire attention to their other store at the corner of Broadway and 54th street.

The chairman of the Committee of Arrangements for the Asheville (N. C.) meeting of the A. P. A., is receiving many inquiries about rates, transportation, etc. The attendance at the convention bids fair to be large.

B. R. Cowgill of 143d street and Eighth avenue has sold out his store to F. A. Oettel, who was formerly with Elmer & Amend, at the corner of Third avenue and 18th street. Mr. Cowgill is looking around for another store.

Charles Stern of Charles Stern & Sons, the wine merchants of 14 and 16 Vesey street, will return to Los Angeles in a day or two to superintend the erection of additional buildings at his plant. These are to be ready for use by September.

Prof. F. J. Wulling, dean of the College of Pharmacy, University of Minnesota, was a caller at the Era office on Thursday last. He called for Europe to-day and will visit the various educational centres of England, Scotland, France and Germany.

The New York agent of the Low Art Tile Company has placed new fountains with James Dody of Basking Ridge, N. J., and with R. R. Wanless, 322 Ninth avenue. A Low fountain will also be put up in the new pavilion at the East 23d street ferry.

Conrad B. Lee of the J. Ellwood Lee Company of Conshohocken, Pa., was in this city last week closing a large contract for one of their patented articles. Mr. Lee said that his firm was adding a large absorbent cotton plant to its factory.

William H. Schmidt, formerly with A. Klefer & Co. of Indianapolis, was best man at the wedding of his friend, John T. Brush, the baseball magnate, at Dr. Robert Colyer's church on June 6 at 11 a. m. Mr. Schmidt was a thing of beauty to gaze upon.

The Monatsblatt of the New York German Apothecaries' Society made its appearance during May and was well received. Dr. Hoffman of the Rundschau gave it a very nice notice and one thoroughly appreciated by those who are in charge of the Monatsblatt. Success to it.

M. B. Krappe and J. A. Koellner, two members of the German Apothecaries' Society, and old-time druggists, died recently. Mr. Krappe had been in this country for twenty-five years, during all that time conducting a druggist's business, and Mr. Koellner has been on this side for forty years.

John Hodge, the newly elected Grand Master of the Grand Lodge of Masons of this State, is the secretary and general manager of the Merchants' Gargling Oil Company of Lockport, N. Y. He is very well known and liked in the drug trade, and is receiving congratulations on the honors he has received.

A. M. Tenney, the Ninth avenue confectioner, has brought over from Paris what it is believed will prove a very popular Summer drink. It is called "Cassis," and comes in the form of an extract of peculiar and delicious flavor, slightly resembling that of the American black currant.

Emil Utard, representative in this country for Ed Pinlaud's products, is to sail for Europe on La Bourgoigne June 30. His sister accompanies him. M. Utard goes to Paris and to Strasburg, his home. He will be absent about two months, and will be represented here meanwhile by his brother, Henry Utard. M. Utard makes yearly trips home, and all his many friends hope this excursion will be the most pleasant of all.

Dr. Henry H. Rusby, professor of botany at the New York College of Pharmacy, was consulted in regard to the root that caused the death of those five boys at Tarrytown this week. He pronounced it to be the poison of Socrates, water hemlock, scientifically, *Cicuta maculata*. Dr. Rusby says the marsh lands all around New York are full of this herb.

W. F. Rawlins, proprietor of the drug store at the corner of 135th street and Eighth avenue, is a Philadelphia College of Pharmacy graduate. Of his assistants C. P. Bolson is a N. Y. C. P.; James Bingham, who was formerly with Mr. Rawlins, was graduated with this year's class of the New York College. He is now at Glens Falls with Leggett & Petty.

Dr. Vredenburg of New Brighton, S. I., is erecting a very handsome five-story building on the terrace at the corner of York avenue. It will cost in the neighborhood of \$30,000, and will be an ornament to the island. The workmen will complete the job in about a month. The drug store will be on the corner, and will be especially large and completely equipped with all modern conveniences.

Detail work in relation to the coming meeting of the N. W. D. A. goes on rapidly, the subcommittees finding that they can keep busy perfecting arrangements during all of their spare time. There has been no formal meeting of the committee since the last report in The Era, but the members see each other from day to day, and never neglect an opportunity to add a finishing touch to work already practically completed.

The druggist is a long-suffering and patient man. His store is often the death place of the victims of accidents and of the self-destroyers, but it is to be hoped that Druggist George K. Campbell of Montgomery street, Jersey City, will have a monopoly of his peculiar affliction. Within the past year ten couples desirous of being "hitched" for life have rushed into his store and asked for a minister. The last occasion of this sort was on May 27.

To be obliged to defend a suit in court when you and others know that the complainant is wrong, is a source of worry and expense. In a communication a druggist gives some facts about a case in which a woman sues because she was given insect powder instead of compound licorice powder. The druggist had witnessed to prove that she asked for insect powder. Of course the case will probably be thrown out of court, but the druggist will have to pay for his defense.

The Low Art Tile Company of Chelsea, Mass., has just set up for the Hudnut Company of 205 Broadway one of its most important constructions in the soda fountain line. Its dimensions are twenty-four feet in length and twelve feet in height. In design and color it is a most harmonious piece of decoration. Its effect is heightened by an extremely elaborate serving counter, also constructed of art tiles similar in design to the Low exhibit at the World's Fair. Druggists will have an opportunity to see the amount of decoration that can be obtained by the company in its fountains by dropping in at Hudnut's, and they can also see something of the working qualities of the mechanical parts.

L. Glaeser has opened a new drug store on Bergenline avenue, Union Hill, N. J. Mr. Glaeser was for many years a druggist, but about five years ago gave up the business, with the intention of keeping out of it for the rest of his life. His many friends in the trade are glad to see him behind the counter again.

A well-read and very bright man passed away when Dr. Kennedy of the Protinal Co. died. He was with W. R. Warner & Co. for about four years, and three years ago started the Protinal Co., becoming its president. His office was at 163 William street, and as he was well known to traveling men all over the country, they never visited New York without calling on him. His popularity was marked, and his death created genuine sorrow wherever he was known.

There was quite a flurry in the chemical market the first of the month, owing to the sudden decline of a number of important staples. Among them may be specially mentioned muriate of cocaine, salicylic acid, chloral hydrate and salol. The drop was considerable. It is hard to assign a cause for the reduction in prices. "Many believe," said a dealer, "that the contemplated changes in the tariff schedule affected these articles and also the idea that the bill will surely become a law."

J. A. Sangston is no longer connected with the New York salesroom of the Low Art Tile Co. He severed his connection with the office this week, and G. M. Howell is now in entire charge of this end of the business. Mr. Sangston, it is understood, has gone to the head office of the company, and may possibly be seen in some other territory for the same concern. Mr. Low was in this city during the week and also visited Buffalo. He is a thoroughly representative Boston business man and a pleasant gentleman.

John M. A. Laue, president of the Laue-Davis Drug Co. of Portland, Ore., was seen in this city this week. Mr. Laue has much improved in health and spirits since his business took him out West. He has been away about fourteen years, and has been more than usually successful. Mr. Laue's brother owns a drug store in Passaic, and is about to make an extended trip to Europe. While he is away his brother will attend to the business of the Passaic store. Mr. Laue reports that business is not nearly so bad out on the coast as it is here.

When George E. Shiels, the druggist at the corner of 12th street and Broadway, died this past Winter, it was almost certain that his store would have to pass into other hands than the family's. Mr. Shiels' patronage was of such a nature that nobody else could carry on that store successfully. He was so well known that many friends came or sent from a distance to get him to compound a prescription or to secure some article in his line. The personal element was consequently a big one in his business, and it was well for him that such was the case. The change in the character of his surroundings as regards trade would long ago have sent him uptown, but for this personal following. So it is not surprising

that when the store was sold the other day by order of Albert Shiels, the executor, nobody bought the place outright with the intention of continuing the business. The sale of stock and fixtures took place on Monday last at 11 o'clock, terms cash. The amount of stock on hand was surprisingly large, three floors being filled, and everything was disposed of. Albert Shiels said it was a fairly successful sale considering the state of business and the terms of the sale.

The investigation made by M. Emil Utard in the matter of fraudulent imitations of Ed. Pinard's perfumes upon the Pacific coast, mentioned in the last issue of The Era, has taken definite shape by the institution in the Superior Court at San Francisco of suits against Edward Meeks, a manufacturer doing business under the name of the Ideal Perfumery Company, and two dealers, Goldstein & Cohn and a Mr. Kline. Many other druggists who are known to have been handling the bogus preparations have been requested to cease their sale, and give an undertaking, secured by bond, not to handle imitations in the future.

Walter Boston, the night cashier of Perry's Pharmacy in the Sun Building, celebrated his twenty-first birthday a few days ago. Among the many tokens he received was a gold scarfin representing a hare holding a diamond. Accompanying the gift was this effusion—unfortunately no name was attached:

"Should you grow bald
From 'love' or care,
Remember I
Gave you a—hare."

"Walter" is popular with the boys on Newspaper Row. He declares that the author of these touching lines deserves to rank with the "Sweet Singer of Michigan," Bloodgood Cutter, the farmer poet, and other famous versifiers of the day.

When a bull pup attempts to surround a Turkish towel, he furnishes all the necessary elements for both a tragedy and a comedy. The comedy is usually of the curtain-raiser sort, short and side-splitting, and is quickly followed by the sadder but more instructive Bernhardtian piece de resistance. Nobody who has not seen a pup swallow a towel of the Turkish variety can understand how funny it is. Druggist Edward Foerster of Bedford avenue, Brooklyn, had a bull pup and the animal did this very thing. Mr. Foerster missed the towel, and was unable to even surmise where it had gone. His dog "Skeesiks" knew, but refused to state. After the pup had given his little performance to a select but interested audience, Mr. Foerster investigated the interior of the foolish brute, and there found the rough cause of the excitement. An odd summary of this distressing affair may be made as follows: Mr. Foerster was "out" a towel; the pup was "in" a towel; the towel was in a dog. So, really, Mr. Foerster had not lost anything, having both his towel and his dog. Then the towel was out of the dog; the dog was out in Newtown Creek and Mr. Foerster was in a towel; out a dog and won't have to pay a license tax on the animal this year. The question comes, How stands Mr. Foerster, is he "out" or "in"?

BOSTON.

Boston, June 9.—Druggists in Boston who run two or more drug stores will get but one liquor license this year, and it will carry with it permission to sell liquors in but one of the stores. There are twelve such among the applicants for sixth-class licenses. Before coming to a decision on the point the Police Commissioners wrote to the State Board of Pharmacy asking whether duplicate certificates of registration are given to druggists having stores in different parts of the city, and whether a clerk's certificate displayed in either store is sufficient reason for granting a license. The Board of Pharmacy answered no to both questions. Chairman Whitney of the State Board of Pharmacy said: "A certificate of registration is required for a license. That is clear enough. The board cannot grant duplicate certificates according to law, and, of course, has no disposition to do so. In section 8 of chapter 313, acts of 1885, the wording is: 'Every person who has received a certificate of registration from the board shall conspicuously display the same in his place of business.' He cannot display it at but one store, and therefore only one should be licensed, according to our interpretation." Police Commissioner Whiting said: "Applicants for sixth-class licenses must be bona fide proprietors of stores. A clerk's certificate will not go unless it can be shown that the man acting as clerk is also an actual partner."

Harry Niles, a young drug clerk in Somerville, was arrested the other day, charged with the illegal transportation of liquor. He was arraigned in court and pleaded not guilty. The case was continued. The peculiarity of the case against Niles has aroused much interest. He was arrested for the violation of that section of the Public Statutes which reads: "No person shall bring into a city or town in which licenses of the first five classes are not granted any spirituous or intoxicating liquor with intent to sell the same himself, or to have the same sold, by another, or having reasonable cause to believe that the same is intended to be sold in violation of the law; and any liquor transported contrary to the provisions of this section shall be forfeited to the Commonwealth; but this section shall not apply to the transportation of spirituous liquor through a town to a place beyond." The policeman who made the arrest acted under the supposition that the boy was transporting liquor which was to be sold in Willard's drug store, where he is employed. Mr. Wilken, manager of the store, says that the boy did not know what the hand bag which he was carrying contained.

Some time ago the Aldermen of Newton received a strong remonstrance from sixty prominent citizens at the Upper Falls against the alleged injustice of refusing license to the druggists of that place, and petitioned that they be granted. There was some expectation that the board would act favorably, but the aspect of the case was changed somewhat by a hearing given the other night on the petition of Bernard Billings for a sixth-class liquor license for his drug store at Upper Falls. Fifteen persons appeared at the

hearing and remonstrated against the granting of the license, and Charles Andrews, 10 years of age, testified that he had been engaged to carry liquor from the store to many people in the neighborhood. Dr. McCoy, one of the remonstrants, was particularly bitter in his denunciation of any attempt to secure license. From his patients he had learned that the husbands and sons of families had been frequently intoxicated from liquors obtained at the drug store of Mr. Billings. He stated that his practice often detained him out late at night, and upon several occasions when he had been so detained he had seen gangs of men issuing from a room directly over the drug store, from which access could easily be gained to the former. Other speakers also made strong speeches in opposition.

Since the Malden Aldermen refused to grant licenses to druggists there has been considerable talk about the right of druggists to keep liquor for the compounding of medicines, and it has been asserted that they have a perfect right to do so, provided that the quantity kept is not in violation of law. But there is no law fixing the limit of the quantity which may be kept. The liquor must, however, be actually kept, and not disposed of either as an ingredient in a bottle of medicine or in any other form. Now, the druggists of Malden are disinclined to take any chances on this nice point, and many of them have removed all liquor from their stores. They will have to receive some assurance of protection from the city authorities before they will risk keeping liquor on their premises in violation of law.

A successful move against the liquor-selling druggists of Salem was made last Saturday evening, the police raiding three places and seizing several hundred bottles of lager, many cases of wines and English ale and about 150 gallons of hard liquor in kegs. The places visited were the Boston Street Pharmacy, kept by Dennis, Hartnett & Co., and the Charles Ospeas Drug Store, corner of Boston and Watson streets. The raids are the talk of the city, as the places have been doing a rushing business for several months. When the Aldermen met the following Tuesday it was voted not to grant licenses to druggists this year, Alderman Flynn dissenting. Mr. Flynn said that the board could not legally act on the license question, as no advertisement had appeared in the papers that action was to be taken.

C. H. Woodman, druggist, Haverhill, has assigned.

S. A. Emery, druggist, Northborough, has failed.

S. Harding Holbrook of Lynn has bought a fountain of Tufts.

Dedham druggists are now forbidden to sell soda or cigars on Sunday.

W. A. Torrey of Braintree has just been granted a druggist's liquor license.

George W. Brush of Williamstown, Vt., has bought a new soda fountain of Tufts.

R. T. Crane of Machlas, Me., was in town with A. W. Bowker of Brookline April 16.

C. I. Hood of Lowell has purchased the World's Fair prize winning Jersey cows. Merry Maiden and Brown Bessie.

Burglars have stolen about \$50 in cash at the drug store of H. P. Thompson, Lewiston, Me.

A. Millar Pollard of Somerville has accepted a position in the drug store of Woodward & Co., Tremont street.

The police of Chelsea seized a small quantity of liquor at the drug store of James R. Cook, 819 Broadway, the other day.

Woodward Brothers of Ellsworth, Me., have opened a new drug store in that place, and have bought a Tufts soda fountain.

Damage of perhaps \$200 was caused the other day by a fire in the drug store of George E. Burrell, druggist, 175 Boylston street.

The Selectmen of Uxbridge, after a three-hour debate, refused to grant sixth-class licenses to all three druggists in the town.

An attempt was made some nights ago to enter the drug store of Stephen A. Pierce, Quincy. Mr. Pierce frightened the burglars away.

Preparations are being made at St. Johnsbury, Vt., for the formation of the Azte-Zone Chemical Company, with a capital stock of \$10,000.

J. G. Godding, druggist, 275 Dartmouth street, is among the citizens whose views on the need of rapid transit in Boston have been considered good enough to be published in the daily papers.

It seems that it was not Mr. Chesley, the missing Rosindale druggist, and Mrs. Munz who returned by boat to Boston. At last accounts the pair were "doing the Paul Jones act" in the northern part of Maine.

The trial of Philander B. Hall, formerly a drug clerk in Malden, who was charged with the larceny of a watch from a young lady in Warren, took place recently and resulted in a complete exoneration.

Elijah Hughes of Williamstown has been fined \$100 and costs for selling Jamaica ginger. The authorities found that 33 per cent. of some of the Jamaica ginger was alcohol. Mr. Hughes, on being convicted, appealed.

H. S. Garcelon, druggist, Studio Building, West Somerville, has recently put into his show window a new-style arrangement for displaying goods, consisting of several glass shelves, supported by nickel-plated rods and standards.

At Gloucester the Aldermen decided to grant all but five of the applications for druggists' licenses despite the objection of Mayor Cook that action could not legally be taken by the board, as the bill creating the License Commission had become a law.

Luther W. Easton, a Rockland druggist, was found dead in a chair in his store on the evening of June 5. Heart disease was the cause of his sudden death. Mr. Easton was well known, being a prominent Odd Fellow. He had a wife and six children.

Police of Lewiston, Me., are beginning to look after the saloons which masquerade there as drug stores, and the other Sunday the City Marshal ordered all places not having a registered druggist to remain closed during the one hour allowed for business.

According to the monthly report of the State Board of Health the samples of drugs found to be adulterated were chlorine water, chlorinated lime, spirits of juniper and tincture of iodine.

A. F. Woodbury, for ten years manager of Bird's Brookline Pharmacy and for two years at the College Pharmacy, Northampton, has opened a store of his own at Shelburne Falls.

As the Malden Aldermen have refused to grant sixth-class licenses, it is said that a druggist to whom a man took a physician's prescription for a half pint of whisky not only refused to fill the prescription, but telephoned other druggists not to do it.

Hon. Gorham D. Gilman of Gilman Bros. has received a commission as Hawaiian Consul at the port of Boston for the Provisional Government, and is prepared to attend to any business in which his services may be desired. His appointment was actually made ten months ago.

Elias Carpenter & Co., have bought the old H. J. Watson store, 31 Aborn street, Providence, R. I. This store was moved to that city from New York, and in its day was the finest in Providence. Mr. Carpenter is refitting the store and has put in an onyx and white and gold soda fountain of Tufts' make.

F. A. Woodbury, who recently sold out his establishment at Maverick square, East Boston, is back at the old stand clerking for D. A. Eaton & Co., who bought him out. It is said that a few weeks of idleness were all that he could stand. The firm is to be congratulated upon securing so good a clerk.

When the Massachusetts Medical Society holds its annual meeting in Boston next week for the benefit of the visiting physicians the students of the Massachusetts College of Pharmacy will prepare an exhibit of crude drugs and preparations of the United States Pharmacopoeia, to illustrate the revised edition of 1890.

Woburn, Stoneham and Winchester druggists have organized an association for the purpose of promoting good fellowship and regulating prices. These officers were chosen: President, R. C. Evans of Winchester; vice-president, W. F. Gordon of Stoneham; secretary, F. T. Brooks of Woburn; treasurer, R. S. Walton of Stoneham.

The other afternoon a man went into a Boylston street drug store to buy some quinine. He threw down a quarter, and, taking the box of pills, went his way. Before he had reached Berkeley street he was stopped by a boy, hatless and breathless, who said: "Here, sir, is your change. Mr. Durkee sent it." The "change" was 10 cents, and the boy had run a block to return it to the purchaser, who did not know there was any "mark-down" sale going on.

Sessions of the Board of Registration in Pharmacy were held May 22, 23 and 24, at which forty-three were examined. Certificates were granted to Simeon A. Flynn of Boston, Joseph A. Prescott of Marlborough, Frank W. Sinaud of Marlborough, Joseph Brin of Springfield, Harry B. Cleveland of Boston, Oscar C. Goddard of Boston, John H. Blanchard of Boston and William S. Briny of Bath, Me.

The long-established drug business of Dr. Benjamin Hubbard of Plymouth was being purchased by the doctor's son, L. P. Hubbard. Dr. Hubbard does not retire from medical practice. The new proprietor of the old shop intends to keep a first-class pharmacy. A special feature will be the introduction of an assistant speaking the German language.

Two business men of Charlestown were convicted in court last week for violation of the public statutes enacted to protect the owners of cans, bottles, boxes, siphons and fountains used in the sale of milk, cream, soda water, mineral and other waters, ale, beer, ginger ale and other beverages. These two convictions will serve as a warning to other bottlers and junk dealers, as the Manufacturers and Bottlers' Association intends to enforce the law to protect its members.

Charles Nichols, prescription clerk for Bisbee B. Merrill, Brewer, Me., met with a painful accident while playing bill. One of his hands was struck with a pitched ball, dislocating one of his fingers and cracking a bone in his hand.

Judge Peabody of Portland, Me., has lately heard the evidence in the case of the Freeman Rice Medicine Company's petition for the appointment of an assignee. There are about \$3,500 claims against the company. Col. George F. McQuillan and Fred V. Chase were appointed assignees.

The customers of at least one druggist in Somerville will not be endangered in cases of serious emergency by refusal of the Aldermen to grant druggists' liquor licenses. R. J. Willis, formerly of Willis & Multhead, who has just opened a new store at the corner of Medford and Sycamore streets, says that, as he cannot sell brandy or whisky, even in cases of emergency, whenever he knows of such cases, and knows that the persons who call for the liquor are honest, he will give it to them with his compliments. He intends to keep a small quantity in his safe or locker for that purpose.

At Newport, R. I., the stock, fixtures and equity in the building of Hazard, Hazard & Co., druggists of Newport and New York, have been attached in the interest of John R. Caswell of Caswell, Massey & Co. of New York and Newport. The claim is said to be for \$25,000. Both firms are the outgrowth of the old firm of Caswell, Hazard & Co. Hazard, Hazard & Co. occupy the old place in Newport and did not drop Caswell from the firm name until after long litigation. Since the division of the firm there has been friction.

At Everett last Sunday a meeting was held under the auspices of the International Religious Liberty Association, at which George E. Fifield declared that the order of Mayor Batchelder, in not allowing druggists to sell articles other than medicines, was not in keeping with the sentiments of the American people. The law was unconstitutional and unpatriotic in a country which boasted of its religious liberty and its freedom to all. The speaker claimed that no man or combination of men had a right to make laws which inflicted a hardship on their fellow men, or which prevented them from getting on Sunday what they were in the habit of having on the other days in the week.

PHILADELPHIA.

Philadelphia, June 9.—The subject of "Box and Cartage" is now being considered by a committee of the Philadelphia Drug Exchange, and by the time this letter is printed the committee will have made its report to the Board of Directors, and they in turn will have submitted it to the National Wholesale Druggists' Association. It was learned that the report will state the inability of making a change in the manner of conducting the business at this late date. It is contended that it would be almost impossible to get the consent of all the manufacturers and dealers to charge for the "boxing and cartage" of the goods to the various customers. It is also said that if a dealer transports free of charge the goods bought by a city house it is not more than fair that he should do the same to the buyer who lives along the line of a railroad. That is, the goods should be delivered free at the freight station. A member of the committee said: "If all the manufacturers and dealers should sign an agreement to charge for boxing and cartage it is not certain that the buyer would pay for them, and it is more than likely he would run his pen through the charges and let it stand at that. Maybe some of the dealers would consider this living up to the agreement, and would take any step to enforce the payment of such charges, while on the other hand some dealer would make it an object to secure trade by some trick so well known to sharp business men. The custom of sending the goods free, including the boxing, has been too long in vogue to make any change, and it is not considered possible and feasible by the majority of the druggists in this city."

H. G. Eakin has bought the drug store at Sixth and Vine streets, formerly conducted by Charles A. Eckles.

Long & Neely have recently transformed their store, and added an immense soda water fountain, which is making things lively.

Frederick Quackenbush, a graduate of the class of '90, P. C. P., will be married to Miss L. W. Simmons of Redley Park on June 19.

H. C. Frederick, formerly with W. P. Moore, and recently at 10th and Green streets, is now representing Hance Bros. & White.

Daniel Kunkel has removed his drug store from Howard and Hancock streets to Third and York streets. The location is far better than the old one.

James H. Munson, who owned the drug store at 24th and Lombard streets, died on May 21. He was 29 years old, and was well off in worldly goods. He died of paralysis of the heart.

Harry B. French has turned over to the congregation at Rosemont the very pretty, unique chapel which he has had constructed in memory of his wife. On May 27 appropriate services were held.

Schandelin & Lind, manufacturers of Garwood's standard perfumes, have just completed their holiday goods. They have established a Chicago office, with Austin F. Remsen in charge, at 145 Wabash avenue.

Bullock & Crenshaw have notified all their customers that in order to allow their employees recreation during the Summer months, the store will be closed every Saturday at 12 o'clock, between June 1 and Sept. 15.

Dr. H. E. Wetherill, son of the member of the same name of the firm of Wetherill & Bros. of this city, has been chosen surgeon of the expedition which is going after Lieut. Peary in the Northern regions. Dr. Wetherill is at present resident physician of St. Christopher's Hospital, at Fourth and Hunnlingdon streets.

The last meeting of the Board of Trustees of the College of Pharmacy, before the Fall term opens, was held on Tuesday. It was reported that the Alumni Association had raised \$1,200 for the construction of the electric plant, and it was decided to have the same completed during the Summer months.

A few days ago Druggist Louis E. Barlow of Richmond and Barlow streets sold some chloral to John T. Wise, from which he died. At the Coroner's inquest Barlow was severely reprimanded for selling this drug. It appears that Mr. Barlow sold the drug to Mr. Wise, and because it was under five drachms he did not register the name of the buyer. After the deputy had given the frightened druggist a lecture he was allowed to depart.

The firm of Riswell & Co. have disposed of their store, at 13th and Market streets, to J. M. Hillan, who conducted a pharmacy at Shenandoah, Pa. Mr. Riswell retires from the retail trade, and in the future devote his time and attention to the manufacture and sale of his specialties on a more extended basis. During the past three years Mr. Riswell has materially increased the business, and leaves the store to his successor in a flourishing condition.

Charles H. Willis, a traveling salesman for Smith, Kline & French Company, died on June 5 at Warren, Pa. Mr. Willis was a former resident of this city, and before entering the firm of Smith, Kline & French Company was engaged in the same position with W. D. Elliott & Co., but when this firm sold out to Smith, Kline & French Company he went with them. Mr. Willis had charge of the northwestern section of Pennsylvania, and was well known in the Eastern States. He was born in Burlington, N. J., in 1832. A widow, two daughters and a son survive him. The funeral took place at Trenton.

The coroner held an inquest recently which resulted in Dr. Clinton Fritz, proprietor of a pharmacy at Tenth and Race streets, being severely censured for selling morphine granules to a drunken man, who swallowed enough of them to kill four or five men. Testimony was given to the effect that Fritz had sold the poison to the intoxicated customer while aware of his condition. Not only one sale was made, but several, until the man died. Fritz, it was admitted, neglected to register the sales, as required by law, and the transactions seemed to be of no more importance than if Epsom salts had been purchased.

Dr. Fritz attempted a defense by claiming it was not customary to register the sale of poison when it was taken by people from places of questionable repute, of which the victim was a frequenter.

The coal strikes and the wet weather have played sad havoc with the country trade of the wholesale druggists of this city. The floods have put a stop to shipping orders, and somehow there are very few coming in the mails. The collections are worse than ever, and customers complain that the flood has deprived them of their business, and until times improve the wholesale dealer must be lenient.

Professor Bastin is making excellent progress in refitting and enlarging the microscopical laboratory at the college. Two hundred fine microscopes have been purchased for the students' use. The quiz rooms on the fourth floor have been thrown into one large apartment for the accommodation of the laboratory, and plenty of light and elbow room have been secured in this way. The course in microscopy will, practically, hereafter be compulsory, for an examination on the subject will be added at the end of the terms, the same as is done in the pharmaceutical and chemical laboratories. This is one of the additional advantages to the student assured by the time allowed him in a three years' course, just established.

There is much good-natured rivalry among druggists of the city in fixing up attractive displays to catch the attention of the passing crowd. Evans' window at 1106 Chestnut street is always a pretty sight, and is now filled with fine Sevres lamps and dainty cups and saucers, specimens of what may be seen in the new department that he has added to his business. A unique display was made by Long & Neely at 12th and Chestnut streets. A large distilling apparatus, hard at work, caused a continuous crowd in front of the store. It was distilling the Geneva Mineral Water, with the object of showing how much mineral matter there was in the water. The result of the distillation was a heap of fine saltlike substance, which showed 249 grains to the gallon.

The new law, which compels all physicians and graduates of pharmacy to pass an examination by the State Examiners before they are allowed to register, is causing considerable trouble in this city. This law does not go into effect until the 1st of next month, but the Governor has notified the Prothonotary not to accept the registration fee of any graduate until he has passed the State Board of Examiners. This law does not matter much to the graduate of pharmacy, as he has always been compelled to go up before a State Board before he could conduct a drug business, but with the medical student it was different. All that he formerly required was his diploma from his college. A few days ago a number of graduates of some of the medical colleges of this city called upon the Prothonotary with the intention of registering, and for which they were prepared to put up their little dollar. The Prothonotary said "nay" and refused to register the new physicians. The outcome of the matter is that mandamus proceedings have been instituted to compel the Prothonotary to allow the graduates to register. It is thought that this move on the part of the "meds" will be taken advantage of by the graduates of pharmacy, as it is stated that there will soon be a move made to have the new law proved unconstitutional on the ground that the colleges that issue the diplomas are not chartered by the State, and that should suffice to allow the graduates to practice.

CHICAGO.

Chicago, June 9.—There is little new to be said of the situation in the drug trade. The cold weather has of course held business back. Collections are poor with most of the houses, much more so, in fact, than in March. Retail dealers do not expect a normal season's business. With the wholesalers it is somewhat different. They declare that while local business is much less than usual, the out of town trade shows an increase over former years, thus bringing the general trade nearly up to usual figures.

J. M. Keifer has put a Tufts apparatus in his new store at Peoria, Ill.

Dr. S. M. Harvey has opened a new store at 7032 Stony Island avenue.

Breves & Geisler have started a new drug store at 323 West 14th street. Charles Rice, 699 West Madison street, has been putting in new fixtures, etc.

J. L. Abt has sold his drug store, corner of Lincoln avenue and Diversey street, to W. W. Daniels.

J. F. Mikolasek has moved his drug store from 48th and Wood streets to West 47th and Page streets.

Dr. M. C. Kentland, a prominent druggist and physician of Kentland, Ind., is in the city for a few days on business.

F. J. Winkelman, formerly manager for Joseph J. Wolf of Peoria, is now with E. J. Knothe, 63d and Halsted streets.

J. Dell & Co., 278 West Madison street, are talking of opening a new store corner of Jackson Boulevard and Hoyne avenue.

The Hart Manufacturing Co. has sold a fountain for a new store just opened at Fort Madison, Iowa, by W. A. McKeenan. Calvert & Morgan moved last week from 447 63d street, Englewood, to corner of Evanston and Oakdale avenues, in Lake View.

The drug store of Charles T. Baring, 37th and Halsted streets, was burglarized the morning of May 25 to the extent of \$91.10.

E. Von Herman, the well-known druggist, corner 31st street and Michigan avenue, is on a business trip to Bay City, Mich.

The Feldkamp store, corner of Clark and Frederick streets, was bought at auction by Henry Schaller, who is now conducting it.

Scott & Jungk have bought a new tilting can Lippincott soda apparatus for the new store they are opening, corner State and 4th streets.

Gustave Nicolasse, the former manager of the Lincoln avenue store, is now at Oquaka, Ill., and will be there until he engages with some firm.

Scott & Jungk's new store, corner 4th and State streets, will be opened on June 18. The Quincy Show Case Company are putting in the fixtures.

Montgomery & Casper, corner of Dearborn and 26th streets, have opened a new store at 26th street and Portland avenue, but continue their old stand.

Axel Hulid recently bought the drug store of C. H. Achelpohl at 702 Lincoln avenue. The latter has just started a new store at Quincy, Ill.

W. E. Eggert, 5305 South Halsted street, started his neat little store at that number about four months ago. He is assisted by his brother.

R. E. Collins, one of the best known drug clerks on the West Side, is in San Francisco looking around with a view to purchasing a store in that city.

Parker & Sawyer, formerly of 1435 West Madison street, are now in business at Dixon, Ill., having bought the pharmacy of M. E. Donaldson of that place.

G. R. Schafer & Co., druggists and manufacturers of patent medicines at Marton, Ill., have just put in a Lippincott tilting jar soda apparatus.

Rogers Bros. opened a fine new store at 748 North Halsted street on June 8. Bletzinger & Dost furnished the fixtures, and a Lippincott fountain is being put in.

Adolph Kiessling is now in charge of the drug store formerly conducted by C. Vanderpool at 99 West 22d street, having purchased it about six weeks ago.

G. Krevatsky will soon move his store from 4822 Ashland avenue to the new building erected especially for him at the corner of 48th street and Ashland avenue.

Mr. Scarborough, Western manager for Charles Lippincott & Co., is meeting with great success in introducing the new tilting jar apparatus made by that company.

W. A. Venus, long established druggist at 781 West 12th street, is just making his debut as a soda water dispenser. He put in a \$2,000 Lippincott tilting can fountain a few days ago.

Joseph G. Wolf, who recently sold his South Adams street store, Peoria, to the Ryan Drug Co., on June 1 took personal charge of his store at 801 Lincoln avenue in the same city.

Emil A. Dornier, corner Schiller and North Clark, was married June 4 to Miss Mary Francis Tempel. They will be at home to their friends at 632 La Salle avenue after July 10.

The Western departments of the four great manufacturing concerns in the American Soda Fountain Co. are now located in the Earl & Wilson Building, Fifth avenue, near Van Buren street.

R. F. Bradford of Pontiac, Ill., is preparing to open a fine new drug store. The Quincy Show Case Company and the Fartt Manufacturing Company will aid in making the store a model of its kind.

C. W. Hallock, who sold his drug store, corner 33d and State streets, to Frank Howard about two months ago, is now in the business at Yorkville, Ill., under the firm name of Knudson & Hallock.

C. S. Ross has just sold his store at 1302 West Madison street to Frank J. Steker. Mr. Ross will go to the country for his health for a short time, but may return later on and open another store.

The Chicago branch of the Emerson Drug Co. sold over 100,000 bottles of bromo-seltzer last month. This figures up at the rate of over a bottle to every family in the city. (Chicago families average large.)

R. L. Wickes, formerly manager of the city department of Lord, Owen & Co., and who bought the old Garwood pharmacy at Evanston a few weeks ago, has refitted the store and put in a handsome \$3,900 Puffer fountain.

H. M. Feinberg, whose store, corner of 11ay street and Washington Boulevard, was burned last Winter, is back in the business again, having just purchased Mathiu Bros' store, corner of 14th street and Centre avenue.

Matthews Bros., proprietors of the West End Pharmacy, 247 West Madison street, closed the purchase of J. Hoembold & Co.'s store, corner Van Buren and Halsted streets, last Thursday, and will operate it in addition to their present stand.

Louis K. Waldron, pharmacist in the Briggs House, Madison and Fifth avenues, is in New York city fitting up a new store corner 14th street and Broadway, in the Morton House. Mr. Waldron will assume personal charge of the New York store.

Truax, Greene & Co. have recently put in a plant for the manufacture of compressed tablets. They have three compressed tablet machines made by the Orfelo Tablet Machine Co., and controlled by the Morley Drug Co., 57 and 59 Franklin street.

The successor to Wm. C. Amos as Western manager of the Winkelman & Brown Drug Co. has not yet been selected. G. T. Blomvelt of the Baltimore office is making the customary Western trip pending the installation of the new man, whoever he may be.

W. F. Mason, who recently purchased C. L. Felkamp's store, corner Diversey and Clark streets, at auction, is now devoting his whole time to its management. He has sold his pharmacy, corner Laflin and Van Buren streets, to Mr. Loerger, his former silent partner.

L. S. Phillips has just purchased the drug store of Schmidt Bros. & Co., at 71st street and Cottage Grove avenue. Mr. Phillips hails from Grinnell, Iowa. Schmidt Bros. & Co. will hereafter confine their attention to their paint, oil and drug business and real estate interests.

Oscar Petting's new store under the Farwell House, corner Jackson and Van Buren streets, is now open, and is unquestionably one of the finest on the West Side. The fountain was furnished by the Hart Manufacturing Company, and the fixtures by the Quincy Show Case Company.

Messrs. Searle, Hereth and Eastman of the Searle & Hereth Co. have gone to St. Louis to attend the meeting called by the committee on discounts appointed at the convention of the National Wholesale Druggists' Association at Detroit last year. After the meeting Mr. Eastman will return to Chicago, while Messrs. Searle and Hereth will attend the Missouri Pharmaceutical Convention and afterward visit the leading jobbers in Missouri and Iowa.

Luman T. Hay of Woodstock has just purchased a handsome onyx and mirror front cherry top Hartt fountain. He has been in the drug business in the same building in Woodstock for the past twenty-five years, and ever since its organization, ten or twelve years ago, has been secretary of McHenry County Druggists' Association. The association was formed to put a stop to cutting on proprietary medicines, which was then prevalent in the county, and was successful.

The annual banquet and meeting of the association occurs the second Wednesday in July. At that time a successor will be chosen to Dr. Wm. A. Mason, who has been president since its organization. Dr. Mason has retired from the drug business since the last meeting.

Dreuhl & Franken, formerly druggists of this city, are now in the business at Salt Lake City, Utah. Mr. Dreuhl was here recently, and said that the firm was doing a good business and is very much pleased with its new home.

Herron & Strohecker, 13 and 15 Jefferson street, became the Chicago agents for Buckett & Wright of Washington, D. C., on May 1, and report a good business in the pure fruit juices for soda fountain purposes made by this concern.

A. T. Hubke, owner of the building corner 19th and Halsted street, has just opened a new store in the corner room. He is not a druggist himself, but has placed a competent man in charge in the person of Ignatz Ode, formerly with Emil Fischeh. Mr. Hubke bought his stock of goods from Robert Stevenson & Co.

Mr. Colbert of the Colbert Chemical Company, proprietors of the new drug store corner of Dearborn and Monroe streets, says that business in the new quarters is exceeding his fondest expectations. They are making a specialty of standard and imported European clinical preparations, and are compiling catalogues for doctors' use.

Adams & Niles, agents for the John Matthews Apparatus Co. and James W. Tufts occupy the entire showrooms at 268 and 270 Fifth avenue, while Charles Lipincott & Co., H. Scarborough, Western manager, and the Western department of A. D. Puffer & Sons are at 264 and 266, respectively.

Fred Rudnick, president of the Illinois Drug Clerks' Association, says that although they have not yet received their charter from Springfield, they expect it very soon. There are twenty-five charter members. The souvenir they expect to issue will probably be developed into a periodical devoted to the interests of the organization and giving practical hints to the clerk in the practical discharge of his duties. Clerks will be asked to subscribe to it, and advertisements will be solicited. He thinks the employment agency scheme spoken of in the last Chicago letter will speedily materialize. They will exert every effort to induce druggists to employ only registered clerks. E. P. Bond, the vice-president, is now traveling in Southern Illinois for a drug firm. Mr. Rudnick says that there are not over 100 drug clerks out of employment in the city at present, but that many of those holding positions have been cut down in salary.

Following is a list of seniors of the School of Pharmacy, Northwestern University, who successfully passed the final examinations this week and who will receive their diplomas at the commencement exercises, next Thursday evening, June 14.

Herbert Howard Bateman, James Joseph Bilsborrow, Ernst Zeledon Bower, Carl Gustavus Breunling, George Styles Bronson, E. Percy Brown, Wesley Irwin Cole, Edward D. Carmichael, Walter Henry Dayton Roscoe Noah Dean, William F. Dexhelmer, Leon T. Durbidge, Frank Wright Dudley, John Christian Dysart, Walter Lyman Flinn, Keene R.

Furston, Edmund Clifton Friatt, Judson Webster Gates, Frank Wilson Gregory, William R. Hancock, Arthur Schroeder Hipke, Edward Eugene Horraiz, Edward James Hughes, Henry John Kamps, Louis William Karl, Albert Franklin Kasper, John E. Kraft, Fred Peterson Krough, Edward Everett Laws, Charles John Lee, Earl Roy Lovett, Harvey Elmer Manning, John Phillip McCaffery, Llewellyn E. McIntosh, Lorin A. McKnight, Charles Vincent Miller, George W. Mosche, Hans Benjamin Muesen, John Dudley Nickson, Otto F. Niethammer, Ivan Benjamin Nordhm, James William Pryor, Walter Montville Robb, William H. Rockefeller, Louis Roettig, William John Rush, Frank Edwin Sahland, James McDonald Scott, William Henry Selig, William Sevier, James Albert Smith, Ralph Harvey Smith, Andrew L. Thompson, James Elmer Torrens, Edward Tschanen, Nordal Charles Unseth, James Frederick Watts, Mal Hall Webb, John Weireter, Frank Peter Weisenberger, Frank Henry Weiss, Theodore Wild, Jr.; Albert Watts Williams, Norris Emery Williams and Frank Burr Wynkoop.

The Gilpin, Langdon & Co. prize will be awarded to F. P. Krough. The following seniors receive honorable mention: Thomas Culpit, Jr.; M. H. Webb, J. Weinetter, I. Weissensberger. The junior prize will be awarded to W. T. T. Davies of Sibley, Iowa. The programme of the exercises has not at this writing been fully made up.

EVANSVILLE, IND.

C. C. Finney has gone into chewing-gum manufacturing.

G. W. Vandusen, formerly of this city, has gone into the retail drug business at Denver, Col.

J. P. Lambert, representing Max Gessler, Milwaukee, was here recently and carried off a number of orders.

The presence of one E. B. Geil of Charles Leich & Co. in the city brought cheer to the fans of Evansville.

A. R. Pfaeflin, the genial proprietor of a neat pharmacy on outer Main street, has gone to Princeton, Ind., to recuperate.

George Mannel, late manager of Haynie's Pharmacy, has taken to the country to recuperate, having been confined to his bed for some time past.

At the recent banquet of the Elks quite a few of the drug family were represented. Christ Butch and Will Loewen were among the number who were present.

Ohning Bros.' new store is attracting widespread attention, it being neat and modern in design and beauty. It is in charge of John Ohning, lately with M. W. Alexander of St. Louis, Mo.

E. T. E. Sanpert, who harbors a vast amount of love for St. Louis, made his escape for that part of the West. However, he found his way back in the deep gloom of night, telling tales of a frightful experience.

Christ Butch, a late graduate of St. Louis College of Pharmacy, who has for the past four years been out of the fold, has returned to his native heath and has purchased the Haynie Pharmacy, Second and Mulberry streets. Mr. Butch has the well wishes of a host of friends in his new undertaking.

ST. LOUIS.

St. Louis, June 9.—The retail trade is in a very slow condition, and less business was done in May than the same month the year previous. The wholesalers report trade not exactly dull, but sluggish, and considerably less than it was in May, '93. The latter part of May there was a cut in freight rates to points west of the Mississippi, and that gave a little rush in the demand, but rates were restored on June 1, and business slowed up again.

A recent trade circular, issued by the Meyer Bros. Drug Company, announces a new and ingenious trick of morphine fiends. The firm's customers are warned against people buying drachm bottles of morphine, and, after taking them home and carefully removing the cork and caps, and emptying the contents, returning with them to the drug store, and alleging that they had been sold an empty vial. Heretofore their scheme has worked with success, as the druggist would replace the "empty" vial with a full one, and call upon the wholesaler to make good the loss.

For the past two weeks a rumor has been industriously and persistently circulated in the drug trade to the effect that negotiations were pending for a consolidation of the Meyer Bros. Drug Company and the Moffitt-West Drug Company. President Meyer said that he had heard the story several times, but that he has never thought of the matter, much less considered it. Denial of the story was also made by the Moffitt-West Drug Company.

Some of the retailers are protesting against a system now in force by some of the wholesale houses whereby salesmen call only once a week. Outside of that special day, if a retailer wants goods either a dime or a \$100 worth, he has to send to the wholesale house for them, for the latter, under no consideration, will deliver them, except on specified days.

The new city directory recently issued shows 315 retail druggists in the city.

J. B. Vinke, leading pharmacist of St. Charles, Mo., spent a few days here last week.

W. R. Beck, a pharmacist at Ottumwa, Iowa, lost \$5,000 by fire on Monday night, June 4.

All of the manufacturing establishments are operating, but with restricted forces.

The wholesale houses have given their employees a half holiday on Saturdays until Sept. 15.

A telegram from Sedalia, Mo., June 5, announced the destruction by fire of J. S. Bonnell's drug store.

O. W. Hoyer, who has spent several weeks in Denver, Col., for the benefit of his health, returned home last week.

The Antikamnia Chemical Company have been granted a trade mark in the letters "A. K." for medicinal tablets.

At Springfield, Mo., on May 26, L. T. Bell, the leading druggist, made an assignment. His liabilities are placed at \$14,000.

On May 23 the Mellier Drug Company entered suit for \$17.45 against B. Barckenweper. The bill was paid on the following day.

The Renol Chemical Company was incorporated on May 24, with a capital stock of \$25,000, all paid up. There are 250 shares of \$100.

William C. Bohanon, pharmacist, has announced himself as a candidate for Congress in the Twelfth District on the Democrat's ticket.

Monday night, May 23, the Chief of Police received notice that Leslie Williams' pharmacy, at Fulton, Ill., was robbed of \$100 worth of drugs.

Dr. R. E. Miller, in charge of the City Hospital, was burned on several parts of his body a few evenings ago, by the explosion of a bottle of carbolic acid.

Col. Edward Mallinckrodt, president of the Mallinckrodt Chemical Works, and family, have returned from a trip to the Midwinter Fair in California, having been away since March 15.

Dean W. Rockwell, a druggist on Seventh and O'Fallon streets, made an assignment June 6, to Bertram C. Kribben, for the benefit of creditors; the assets are given as about \$500.

The wife of D. P. Daugherty, president of the Daugherty-Crouch Drug Company, died Friday, May 25. The remains were taken to the former home of the deceased at Hope, Ind., where the interment took place on Sunday.

On Thursday, June 6, the Alumni Association of the St. Louis College of Pharmacy had a day's outing, thirty miles down the Mississippi, on the City of Vicksburg. There were numerous games for prizes that amounted to several hundred dollars.

In ten suits against the De Lavergne Refrigerating Company, a stipulation was filed that all of the suits should abide the result of the Mallinckrodt Chemical Company case, now in the United States Circuit Court of Appeals, on an appeal from the United States Circuit Court.

Louis Schreier, a druggist at old Manchester Road and Macklin avenue, was charged May 23 with selling liquor without a license. Dr. George W. Hess and George Umber of 5363 Arsenal street, allege that Schreier sold them whisky at 10 cents a drink, and has been selling right along without regard to the law. June 4, the trial came up, and it only took the jury a few minutes to acquit the pharmacist.

The Moffitt-West Drug Company swore out an attachment, June 6, against Frank Lahn, who formerly kept a pharmacy at the Worthen street corner of Grand and Easton avenues, for \$523.55, which the plaintiff alleges to be due for drugs sold to the defendant. The plaintiff also asked Judge Fisher for an order directing the St. Louis Safe Deposit Company to allow the Sheriff to levy on money which Lahn had stored in one of their boxes.

Wednesday evening, June 6, Otto Paul Meyer, of the Meyer Bros. Drug Company was married to Miss Alice McGowan, at the home of the bride's parents, Mr. and Mrs. John McGowan, Grand Rapids, Mich. The ceremony took place in the Episcopal Church. J. B. Whitney of this city served Mr. Meyer as best man. The young couple will spend a month in the East, then coming to St. Louis, will go to housekeeping at the Meyer family residence on Koosuk street. Next Summer they will take a trip abroad.

May 30, T. F. Meyer of the Meyer Bros. Drug Company, was elected to the Board of Managers of the St. Louis Traffic Commission.

The Western Association of Wholesale Druggists began its sixteenth annual session Thursday, June 7, at the Southern Hotel, with about fifty members in attendance. At 11 o'clock Mayor Cyrus P. Walbridge, who is president of the St. Louis College of Pharmacy, welcomed the visitors in a brief address shortly after the session began in the gentlemen's parlor. The meeting was called to order by President Carey Peters of Louisville, Ky., after which Secretary George W. Lattimer read the minutes of the previous session. The meeting was conducted behind closed doors, and lasted about two hours, when the representatives took lunch and then attended the races at the Fair Grounds.

The body has no legislative powers beyond those given it by consent and for the necessary regulation of its own organization. Owing to the existence of subordinate exchanges in various cities the representation was not so large as the membership, though every firm was entitled and was requested to send a delegate to the meeting. On Saturday occurred the election of officers, which resulted as follows: M. C. Peters, Louisville, Ky., president; J. C. Fox, Kansas City, Mo., vice-president; C. P. Frick, Louisville, Ky., secretary; C. E. Cochran, St. Louis, treasurer. Before the close of the convention resolutions on the death of the late John S. Moffitt of the Moffitt-West Drug Company and Mrs. D. P. Daugherty, wife of Mr. Daugherty of the Daugherty-Crouch Drug Company, were adopted. The association decided to meet at Cincinnati in June, 1895.

BUFFALO.

Buffalo, June 9.—Our druggists' are still waiting for business. It is not that people will persist in being so healthy so much as the weather, which is now doing its best to kill what business there is left. Constant rain has a most depressing effect on such warm-weather trade as soda water, which is hardly out of its Winter state. Indeed it may be said that we are not yet out of the Winter months, so far as this and some other trades are concerned. Druggists are especially anxious to begin the Summer season, for they feel that the new fruit flavors are going to put the soda water trade on a wholesome basis, such as chemical imitations would never do. The public have already shown a plain tendency to the natural fruit juices, and will be pretty sure to demand them hereafter. To this improvement the pure food exhibition here last Winter contributed not a little.

The new manufacturing chemists, Huyston & Wing, who established themselves on Hamburg street a short time ago, appear to be doing well, considering the times. They do not yet make a full line of articles, but are becoming known for their salsoda, Epsom salts and carbonic dioxide cylinders for soda fountains.

There is an unusual interest taken in the annual meeting of the State Pharmaceutical Association, which occurs on

the 26th at Saratoga. Whether it is the place that is the attraction, it now looks as though there would be a larger delegation from Buffalo than there was last year to Lakewood, on our own Chautauqua Lake. So far those who expect to go are C. O. Rano, W. G. Gregory, J. R. Gray, R. K. Smither, P. S. McArthur and C. A. Riggs, most of the married members taking their wives with them.

The Buffalo College of Pharmacy is to be congratulated for getting its Summer announcement out so early. It appeared in May, nearly two months earlier than formerly. The college now has a faculty of thirteen members, of whom three are non-resident. It has, since opening in 1888, graduated 125 students, eighteen more having completed the course, but, lacking the required age or experience, their diplomas are withheld. There are now ninety-three matriculates who will presumably complete the course next year. The Fall term begins on Oct. 23.

The County Board of Pharmacy reorganized at the first June meeting, but no changes were made. Dr. Gregory's term expired, and he was reappointed. R. K. Smither was re-elected president of the board and C. O. Rano secretary and treasurer. Meetings are held on the first and second Saturday of each month at the Niagara University. Examinations take place only on the first Saturday, but certificates are given at either meeting. The regular time for re-registration this year expired on May 20 up to which time 13 pharmacists and forty-three assistants appeared. There are known to be several delinquents. These will receive a second notice, which will contain a gentle hint that unless they report their licenses will be annulled.

W. A. Ziemendorf has taken charge of George H. Paddock's pharmacy at 504 Clinton street.

Munyon's Homoeopathic Remedies are now leading in that line just at present. One store reports that it sells about \$40 a day of them.

Fred A. Darrin, one of the older city drug clerks, has taken the local agency for Lettuce Cream, a toilet toilet which is gaining considerable reputation.

Harry Potruff, clerk in Dr. Gregory's Niagara Pharmacy, has gone to Canada for his health. Harry F. Harrington of Marilla, a college junior, has taken his place for the present.

Oscar L. Harries, formerly a prominent city druggist and proprietary medicine man, is now in the bicycle business, and engaged in selling off a bankrupt stock of high-grade pneumatics.

The College of Pharmacy is preparing its annual report to the State Regents, who furnish blanks for quite an elaborate record of the school. Once in five years the report has to be made very minutely and detailed.

It is not often that Buffalo drug stores are charged with aiding the saloons in selling liquor for people to get drunk on, but Policeman Harry T. Gal, was lately tried by the Police Board, charged with drinking too much in Horton's drug store on Ulca street, and neglecting his duty several hours.

The cut price ghost appears to have been downed once more, threatening as it was some months ago. The scare is on about once a year, and lasts long enough to give the members of the trade a free circulation in case their blood has become a trifle sluggish.

Charles Kelley of Skaneateles, a pas Junior in the college, has engaged at Dr. Gregory's Genesee Pharmacy. The doctor has a new \$1,000 soda fountain in his Niagara street store that ought to fill the public eye. It is of imported marble with mahogany finishings, movable syrup cans, etc.

Stephen Spryszynsky has opened a new drug store on Peckham street, in the Polish district, as the name might indicate. He comes from New York city. The need of druggists who can command two languages is felt in the Italian quarter also, but for a long time a dispenser undertook to show his dexterity by operating there without a license. It took considerable address to dispose of him, for he was very wary and would not sell to strangers, but he was ousted after a while.

The County Board of Pharmacy examined three candidates at the first June meeting and granted nine licenses, giving full pharmacy papers to Earle H. Parker and George E. Herrmann and assistants' papers to Oscar C. Diehl, Harry T. LaFevre, Harry J. Harrington, Charles Kelley, Merton R. Ward, Howard N. Church and Leon G. Palmer. All but Mr. Church are members of the college junior class. Of these only Messrs. Diehl and Herrmann are Buffalonians. The college has attracted many young men to the city, and the wonder is that they all find regular business.

The Buffalo druggists some time ago dropped their tennis club and took to the bicycle for athletics, but they are still in the Summer outing line. Last year a move was made to secure a preserve in the Adirondacks, but desirable sites are not so plenty as they might be. Tracts of 100 acres are still offered for \$10, but at 10 cents an acre they are not desirable. The idea of the Buffalonians is to secure a tract or at least a few acres in an accessible locality, so that the whole family can attend and the weaker members be left at the lodge while the men plunge into the woods. An agent at Canton is looking for a suitable spot, but has reported nothing yet. So the fishing preserve at Sardonia, a few miles south of Buffalo, is made the most of.

The Custom House has not yet disposed of its large seizure of opium reported last month. If the stories of the quantities of the drug coming across from Canada in contraband hands are true, the duty on it amounting to millions a year, the Government ought to devise some means of getting a better price for what it captures so as to get back some of its losses. At present it realizes little more than the duty on what it sells. It is reported that the Chinese firm supposed to be connected with the big haul made here last month is represented in Montreal, as well as on Puget Sound. The name of the house changes with every report—being as slippery as the Chinamen themselves, but the people remain the same. The smugglers captured here have not been brought to final trial.

The public appears not to be aware that there is a stringent law against shipping certain indammable and explosive chemicals by water. The steamer lines are alert to the situation, and keep a prohibited list for the benefit of their shipping clerks. Most of these lists exclude numerous articles not mentioned in the law. Scarcely a package freight but goes up the lakes but some consignment of drugs is included in its cargo and a knowledge of the law is essential to shippers.

The Custom House still has possession of the big haul of opium made here some months ago, the order from the Court to sell it not having been given. The smugglers came to grief in a signal fashion. Two of them, George Henderson and Edward Patterson, whose names are apparently assumed, and one Chinaman, whose name is not material, confessed in court at Rochester, and were let off with fines. Charles Kennedy, who appears to have been the ringleader, avoided trial in a most distressing way. He was let out of jail on bail, and to celebrate the event went on a terrible debauch and was brought back with every symptom of delirium tremens. An expert examination found him to be insane, and he has been in the State Hospital for the insane ever since. It is thought that he will never be brought to trial.

The ministerial conference of the Methodist Church of the district of Jamestown met at that place on June 5, and again took up the cudgels against the granting of store liquor licenses to druggists. Resolutions were passed condemning the practice and declaring that it was a violation of both the letter and the spirit of his Methodist discipline for a member to hold such a license. Of course this hits some prominent members of that church, though the personal animus of the action by the ministers does not appear in the report. The question has been up in the Methodist Church before, and Bishop Vincent, while a resident of Buffalo was obliged to say that he was not in favor of disciplining members who hold drug licenses. There is so little complaint of druggists selling liquor saloon style in this city that no action has to be taken, but there may be different practices in the Jamestown district.

Vaccine virus is again in demand. The epidemic of smallpox in Chicago attracted no attention here till it was suddenly learned that there were 1,400 cases in that city. Then it was reflected that boats as well as trains arrive from there every day, and the Health Department set to work. The co-operation of the Government Marine Hospital force was secured, and vessels were required to show clean bills of health on arrival. Careful inspections of boats and trains were made. At present the vigilance is somewhat relaxed, as the disease does not appear to have spread in Chicago of late, nor to have escaped from it. Buffalo has had two cases, but they occurred some time ago, and both recovered. Health Commissioner Wende is still urging general vaccination, however, and has just given directions for vaccinating the employees of large concerns. Free vaccination stations are to be established.

CINCINNATI.

Cincinnati, June 9.—Covington, Newport and Bellevue, our sister cities across the river, were well represented at the meeting of the Kentucky State Pharmaceutical Association held at Paris. In the Covington contingent were most of the best-known pharmacists of that city, and a right royal time did they have. The Newport delegation was chaperoned by Charles F. Keener, who never misses a meeting of this association, and Louisville, Henderson, Paducah, Bowling Green, and nearly all of the principal cities of the Blue Grass State were represented in the assembly.

Prof. Charles T. P. Fennell has the heartfelt sympathy of his host of friends in the death of his estimable wife, Mrs. Sophia Fennell, which occurred a few days ago. The deceased was a charming woman, of many commendable attributes, and was beloved by her legions of friends. She was a social favorite and an earnest worker in the church.

Walter Thompson, the lad whose eyesight was ruined by his eating a number of sugar-coated pellets, has sued the proprietor of the Fountain Drug Store at Huntington, W. Va., for \$10,000 damages. The unfortunate youth claims he purchased the pellets at this store.

The Taylor bill, which was introduced in the General Assembly at Columbus a few days ago, giving the Mayor the power to appoint the members of the Hospital Board, has not met with public favor. The present system of having these gentlemen appointed by the courts seems to be giving satisfaction, and the contemplated measure is said to be doomed to defeat.

An ingenious inventor has startled this vicinity by patenting a new poison bottle to prevent handlers of toxicological drugs from making mistakes in dispensing. The new bottle is made in the shape of a skull and is of red glass. The neck of the vessel protrudes from the top of the skull, and the time-honored crossbones are to be seen on the very edge of the bottle.

John Fallon is letting his mustache grow again.

The slot machines are soon to be banished.

John Keeshan, Jr., is living in Central Kentucky.

Harry Striethorst is just starting a wind disturber.

All the retail druggists report trade to be picking up.

Al Boehmer has been granted a divorce from his wife.

Weatherhead & Co., are to have a female cashier.

The weather is cold and soda water business very bad.

Dr. J. C. McCullough, druggist at Lawrenceburg, Ind., was in town buying goods.

A. Carlstedt, the drug broker, is ill at his home in Mt. Auburn, with rheumatism.

Billy Parchon, representing C. F. Rump & Sons, leather goods, was in town last week.

Martin Dodsworth became an expert ticket seller during the big Odd Fellow celebration.

The hospital contracts for drugs were divided between all the local wholesale druggists.

Lewis Heister will soon commence Spring housecleaning at his store, corner 7th and Elm streets.

F. Brewster Hight, representing the Butler Hard Rubber Company of New York was in town a few days last week.

Most of the local pharmacists are complaining about the prices of sponges. Some varieties are so expensive they are not in demand.

The Stein-Vogeler Company report big sales of the German Household Dyes and Paul Apperman is accordingly very happy and contented.

Ed Voss has a water spaniel which he is teaching to trot. The dog is speedy and will be matched against a famous one of Canada.

Prof. Julius H. Eichberg is to be connected in an editorial way with the new journal which is to be started by the College of Pharmacy.

Otto Rauchfuss of the Standard Drug Company has purchased the Steinciek-drug store in Upper Vine street, which recently went to the wall.

Louis N. Berube, the Avondale pharmacist at Main and Rockdale avenues, will soon have his handsome store rescued by a firm of artists of New York.

Louis Kushick is the proud possessor of a \$50 gold coin on which there is a premium of \$11. The coin was given to him by his sister as a birthday present.

In George Kyllus' library is to be found a copy of an old materia medica which was published in 1820. The ancient book differs in many respects from the works of latter-day authors.

Geo. J. Massmann, the well-known young druggist, after a lengthened illness is back in his old place, with F. Kinzbach, corner of Court and Walnut streets.

The fact that Senator John Sherman of this State favors dropping opium altogether from the tariff list of commodities, has caused some comment among "Uncle John's" friends here.

August Buttenbaum, an educated German pharmacist, arrived in this country a few days ago from his home across the big pond. He is a brother of George Buttenbaum of the Freie Presse staff.

Joseph Dehner, the pharmacist at 7th and Vine streets, is authority for the statement that betting on racehorses is a form of paresis. Joe says leave 'em alone and you will be better off financially.

Louis Sauer, the druggist at Central avenue and Baymiller street, recently heard from the pair of old shoes which he received through the American Express Company. The shoes had made their way to Waco, Tex.

Will Wagner and Louis Kusnick are now in training to reduce their weight. They have purchased boxing gloves and spend their spare time practicing the manly art of self-defense.

Prof. William Simonsen, chemist, is at present conducting some milk analyses for the city. The outcome of his work is awaited with much interest, as considerable has been published about adulterated milk.

CLEVELAND.

The drug store in Farmdale burned to the ground.

The \$15-a-year cigarette law went into effect May 23.

Druggist Handler's clerk Wallace died after a lingering illness.

The Merriam & Morgan paraffin works of this city have been damaged by fire.

The Mayell-Hopp Co. are doing nicely with the Salomee toilet and face powder. Julius W. Deutsch's "Claret Phosphates" are the rage of avenue promenaders.

Edward Beckenback & Co. are exploiting Bethesda medicinal water with evident success.

The Vinola Manufacturing Company of this city are doing a promising business in hair tonics.

G. L. Hechler presented the Warren School with a new flag upon Decoration Day.

The Prescription Medicine Company is a new Canton corporation with a capital stock of \$10,000.

The Wright Medical Company is a new Columbus corporation with a capital stock of \$10,000.

Over \$2,000,000 worth of paints are yearly made in Cleveland, no other city approaching the figure.

The Peck Drug Company of Toledo has had its name changed to Toledo Drug Company, incorporated.

A Cincinnati chemist has invented a process of milk making which reduces the cost to 5 cents a gallon.

About twenty-five members of the C. P. A. and O. S. P. A. from this city attended the Cincinnati reunion.

The Cornell-Phenger Chemical Company of Columbus will hereafter be known as the Columbus Pharmacal Company.

Quite a number of drug salesmen were present at the fifth annual meeting of the Grand Council of Ohio of U. C. T.'s, held here a few days ago.

L. S. Patterson, representing the Kohler Manufacturing Company of Baltimore, Md., has been in the city for some time taking orders for root beer, printer's ink, etc.

The Ohio Legislature has adjourned. So no more cigarette, whisky, medical examiner and pharmaceutical legislation for a long time to come. No wonder the Cincinnati convention was such a hilarious success.

Charles Spencer, the Akron druggist, was victimized out of \$12 recently. Two gentlemanly tricksters entered the store, and while one engaged Charles in "important" business conversation in the laboratory, the other tapped the till to that amount.

Fred C. Emde, ex-druggist, is making an enviable reputation in the capacity of supervisor of cemeteries. The newspapers are just now eulogizing him for his wise and courteous management, the expenses for the first quarter of 1894 having decreased over \$2,000.

In the last report of the committee of the House on claims on contingent expenses three items marked drugs are contained which foot up \$393.53. Now some of the newspapers want to know whether or not they were of the whoop-em-up kind.

The Munyon Remedy Company has opened an office at 433 Superior street.

There have been several valuable canines poisoned of late, and the authorities are attempting to fix the blame. A clue leads generally back to some drug store, and then Sec. 6,852, R. S., comes in. This law provides a fine of from \$50 to \$200 and eventual imprisonment.

The Ohio Druggists' Mutual Fire Association, recently incorporated, is now ready for business. It writes business at cost, herein following the pace set by the Retail Druggists' Insurance Company of Cincinnati. As the retailers of Ohio pay about \$100.00 a year for insurance, there is no doubt a field for the Toledo enterprise.

State Chemist G. A. Kirchmeyer of Toledo and Prof. Albert W. Smith of Cleveland have submitted another batch of analyses. Among them are cream of tartar taken from William Edwards & Co. and Danne Miller & Co. without any cream of tartar; orange wine made by Hoppe & Strud and vinegar manufactured at Lansing, Mich., which are artificially flavored, but carbonated and preserved with salicylic acid. The Hyman malt tonic, which some druggists handle, is simply sweetened lager beer. The Commissioner reports a decrease in adulterations and praises the drug trade for steering clear of falsified articles, and its disposition to assist the State office in detecting cases of adulterations. "But a minority of druggists knowingly handle adulterated articles of food or drugs," said he in conclusion, "and, as a rule, no particular attention is paid to drug analyses save when some gross violation comes to notice. We have considerable faith in the druggists, and do not share the opinion of the newspaper press that they, of all, should be investigated closest."

INDIANAPOLIS.

Indianapolis, June 9.—A big delegation of Indianapolis druggists went to the thirteenth annual meeting of the Indiana Pharmaceutical Association at Evansville on June 13 and 14. The Evansville brethren were prepared to furnish great intellectual and physical entertainment.

Police Superintendent Powell has been enforcing the liquor law so strenuously against saloonkeepers that the latter have kept up a continual howl that he ought to look after the druggists. He has done so, with the result that two or three have paid fines in Police Court recently for selling liquor without prescription and in small quantities. Councilman Cotter is endeavoring to get an ordinance through giving police the right to enter and inspect premises where liquor is sold at any hour of the day or night. This is aimed particularly at the druggists.

Business continues to be satisfactory to both wholesalers and retailers.

A new store is that of J. E. Adams of Lago, Ind.

Wilson & Brown of Greenwood are succeeded by A. W. Owens.

Druggist J. W. Piel of Sydney, Ohio, was in the city and left a large order behind him.

Otis Moore, a popular young drug clerk of Elwood, was married to Miss Ernestine Riebe.

There have been three suicides during the month caused by drinking carbolic acid, and several by other drug routes.

Spaeth & Studley, the oldest drug firm in Laporte, has assigned. Liabilities said to be \$4,000; assets, \$3,000; cause, poor collections.

A fire which destroyed a considerable business portion of Roachdale swept away A. G. Rice's drug store, with a loss to him of \$2,000; insured for \$1,200.

Parker and McAfee, the colored boys charged with murdering Druggist Eyster of this city, were, on their second trial, sentenced to life imprisonment.

The diamond anniversary of O.M.fellowship, celebrated in this city, brought a hundred druggists to Indianapolis, and their presence was felt by the wholesalers.

The Western Chemical Company of this city has lost fifteen barrels of pitch by theft of late. Two young fellows, one of them a driver for the company, have been arrested. It is said they sold the barrels for \$4 and \$5 each.

Louis H. Schuimeyer, a chemist of this city, and his wife were granted a divorce last week. One of the charges the wife made was that Louis had brought home from the laboratory a bottle of strange looking medicine, the contents of which caused peculiar feelings when she took it.

Some anonymous person tried to excite the Indianapolis public by writing to the police superintendent that Louis Snyder, in jail charged with murder, was receiving letters the mucilage on which has been sprinkled with arsenic, so that if convicted he might poison himself rather than hang.

Indianapolis has had a couple of small-pox cases this month and a large-sized scare. Thousands have been vaccinated. Local quarantines have been raised and the patients discharged. The city and its public institutions are still quarantined, however, against Chicago and against places where smallpox exists.

Joseph C. French, one of the oldest druggists in Indianapolis, and who has been at the one stand in the Masonic Temple for eighteen years, has assigned for the benefit of his creditors. He gives "hard times" as the cause. His stock is valued at \$1,500, and his liabilities, it is said, do not exceed this amount greatly. The assignee, whose bond was fixed at \$1,800, will dispose of the property within a few days.

THE SOUTHWEST.

Trout & Hall's store at Wilsonville, Neb., has been sold.

F. L. Gray & Co. have succeeded Gray & Harris at Hitto, Tex.

N. M. Bradley & Co., Mound City, Mo., have sold out to M. Moore.

Hall & Brown, Columbus Junction, Iowa have sold out.

W. C. Wheeler & Co. have succeeded Richardson Bros. at Tilden, Tex.

J. H. Williams has sold his store at End, Okla., to A. L. Mason for \$1,800.

The partnership of Fountain & Bringhurst, Byran, Tex., has been dissolved.

M. F. Hodges has bought the interest of J. Ball, his partner, in the store at Bellevue, Tex.

J. J. Canon, Moscow, Tex., has changed the sign over his door to Canon & Canon.

F. O. Pershing has given a bill of sale for \$500 for his drug store at Mount Hamill, Iowa.

Edward L. Cook, a young druggist of St. Joseph, Mo., shot himself in the presence of his wife. He was despondent over business troubles.

The Stogner Drug Company of St. Louis was incorporated May 10, with a capital of \$5,000. The incorporators are Emil Stegner, Charles Diggs and James P. McGinn.

The stock in Hutchason & Williamson's drug store at Higginsville, Mo., was considerably damaged by a fire which started in an adjoining building a few days ago. Rose & Leddy have moved from Mantou Springs to Cripple Creek, Col.

W. H. Harrison, a traveling salesman for the C. D. Smith Drug Company of St. Joseph, Mo., disappeared a few days ago and his friends fear that he has been murdered. His trunks were packed ready for him to go out on the road, and he left them behind.

The Welmer Drug Company of Russellville, Ark., filed articles of incorporation with the Secretary of State. The incorporators are W. S. Fraser, W. E. Pruitt, R. M. Drummond and P. H. Barlow. The capital stock is \$150,000, half of which has been subscribed.

C. T. Welke, a prescription clerk at Waco, Tex., brought suit last week for \$15,000 damages against W. C. Colgin, a wealthy druggist of that city. He alleges that Colgin publicly denounced him as guilty of criminal malpractice and gave him a severe beating.

Benjamin Aldrich, a druggist of Wichita, Kan., has filed a suit for \$25,000 damages against the Jacob Dold Packing Company. Several years ago the citizens of Wichita gave \$75,000 to the packing company, the consideration being that the company should operate a plant with a killing capacity of 1,000 hogs a day. Druggist Aldrich was one of the heaviest contributors. The plant was shut down a year ago, and so he sues.

The South Carolina Board of Pharmacy will hold its next meeting in Columbia, July 18. Further information may be obtained from the secretary, H. W. Hummel, Charleston.

The New Jersey Board of Pharmacy, at its quarterly meeting held in Camden, April 19, registered sixty-two graduates on diploma and examined a class of fourteen, awarding certificates to the following successful ones: William F. Weber, Millville; Arthur S. Wilcox, Philadelphia, Pa.; Henry J. Fleischauer, Springfield; Howard Baer, Salem; F. W. Speckman and Owen F. Garagan, Newark. At an adjourned meeting held in Jersey City April 20, eight graduates were registered and a class of twenty-seven were examined. Certificates were awarded to Benjamin Bethel, Paterson; H. R. Rachel, New York City; Adolph Treupel, Brooklyn; John G. Kimpel, Jersey City Heights, and C. D. Kay, Jersey City. At the Asbury Park meeting, May 22, fourteen were registered on diploma. The next meeting for registration and examination will be held in the New Jersey College of Pharmacy, Newark, Thursday, July 19.

ASSOCIATIONS.



POLK MILLER.
VIRGINIA.

American Pharmaceutical Association begins its forty-second annual meeting in Asheville, N. C., Sept. 3. Already arrangements have been made by the local committee, the members of the North Carolina Pharmaceutical Association and Asheville druggists to make the 1894 A. P. A. meeting the most successful and enjoyable one ever held. Besides the valuable scientific and professional features promised, the visitors will be regaled with true Southern hospitality, supplemented by drives and excursions to places famed for their mountain scenery in the "Land of the Sky." An entertainment already promised the Committee on Arrangements is one of more than passing interest to druggists, to be given by one whose name has become familiar to the "craft" throughout the United States, and one who, in a measure, represents the new genius of the South. We refer to Polk Miller, president of the Polk Miller Drug Company, Richmond, Va. As a delineator of negro character Mr. Miller is a success and has attracted widespread attention both from the press and prominent people in letters and art. In his dialect recital and "character sketches on the old Virginia" negro, he takes one back to the old times in the South and draws delightful word pictures true to Southern plantation life. Mr. Miller is about 50 years of age, a typical Virginian, and is said to be the best delineator of the negro character and the best story teller in negro dialect in the United States.

Reduced rates from hotels and railroads have been secured.

New Jersey Pharmaceutical Association met in twenty-fourth annual session at Asbury Park May 23 and 24. President E. B. Jones, in his annual address, reported the financial condition of the association good. Three members died during the year. A bill eliciting considerable discussion was one presented to the Legislature last Winter, having for its object the proper registration of graduates in pharmacy. The president also struck a blow at proprietary drugs, and urged each pharmacist to sell his own preparations. He also recommended that the Legislative Committee renew its efforts toward securing needed restrictive laws. The

next annual meeting will be held in Newark; time and date undecided. A suitable programme for the meeting next year will mark the twenty-fifth annual meeting of the association. A handsome antique oak card table was presented to George E. Williams in appreciation for what he had done in entertaining the delegates to the meeting. The following officers were elected: President, George W. Parison, Perth Amboy; vice-presidents, Charles F. Dare, Bridgeton; Stephen D. Woolley, Ocean Grove; secretary, William C. Alpers, Bayonne; treasurer, Geo. T. Fitzgeorge, Trenton. Executive Committee—Charles F. Dare, H. P. Reynolds, H. P. Thorne, Charles Holzhaun, H. O. Ryerson. Legislative Committee—Gilbert S. Cook, George T. Fitzgeorge.

Kansas Pharmaceutical Association held its annual meeting at Salem May 29 and 30. A synopsis of a number of papers, prepared by the students of the School of Pharmacy of the University of Kansas, was presented by L. E. Sayre. The eligibility of women for the profession of pharmacy was also interestingly discussed. Officers for the ensuing year: President, Howard H. Hettington, Wichita; vice-presidents, J. W. Hurst, Newton, and Emil Amer, Salina; secretary, Mrs. M. O. Miner, Hiawatha; assistant secretary, Fred McDonald, Topeka; treasurer, H. W. Spangler, Perry; librarian, L. E. Sayre, Lawrence. Executive Committee—F. E. Holiday, Topeka; F. T. Richter, Wichita; H. W. Spangler, Perry; A. B. Wolverton, Topeka. Eighty-six new members joined the association. Fred McDonald of Topeka secured a gold medal for submitting the largest number of new members of any traveling druggist on the road. Field sports and races in the afternoon and a farewell reception in the evening ended the exercises.

Ohio Pharmaceutical Association met in sixteenth annual convention at the Grand Hotel, Cincinnati, June 5 and 6. After calling to order, President Hechler of Cleveland introduced Mayor Caldwell, who delivered the address of welcome. H. D. Eady of Elyria responded with an address which sparkled with good points. In his annual address the president recommended that the annual dues be increased to \$2 a year, the secretary's salary be made \$300 a year, and that leading pharmacy lecturers of the country be invited to Ohio to deliver lectures. He also recommended the appointment of a committee of three to devise some plan to prevent the selling of patent medicines at cost. The latter recommendation was immediately disposed of by the appointment of a Committee on Proprietary Medicines, consisting of H. W. Stecher, Cleveland; C. W. Tobey, Troy, and A. Meininger, Cincinnati. The treasurer reported the affairs of the association in good shape, with a membership of 1,200. At the afternoon session various reports were read and thirty-two new members were enrolled. The report of the Committee on Pharmacy Law, in which the Abbott law was severely scored, led to a discussion whether it was advisable to raise a fund for such contingency in the future. The question was lost, and it was decided to await de-

velopments. G. W. Dietrich of Carthage, Mo., and Charles Menkenmeller of Wheeling, W. Va., were elected honorary members, and greetings were sent to Professor F. A. Flueckiger of Strasbourg (at present sojourning in New York) and to the pharmaceutical associations in session in Arkansas and Utah.

The election of officers resulted as follows: President, Charles T. P. Fennel, Cincinnati; Vice-Presidents, J. T. Piffner, Delaware, and George Voss, Cleveland; Permanent Treasurer, J. H. Von Stein, Upper Sandusky; Permanent Secretary, Lewis C. Hopp, Cleveland; Executive Committee—John Byrne, Columbus; John Ruppert, Cincinnati, and S. Aubley, Cleveland.

While the gentlemen were discussing the affairs of the association the wives, sweethearts and daughters took a trip on specially chartered cars and witnessed the dress parade at Fort Thomas. The evening session was devoted to pleasure, including a grand concert and a banquet later in the evening.

The second day's attendance was much better than the first. The various committees reported on work under consideration, including the proposition that the annual dues be increased to \$2 per year. The salary of the secretary was also increased to \$300 per year. The printing and mailing of circulars to educate the public in the handling of morphine and liquors were approved and the carelessness in the dispensing of poisons was discussed at some length. The Dow tax, which all druggists in the State condemn as unjust, also came up for argument.

The majority of those present favored the sale of liquors on the prescription of physicians.

It was reported by the secretary of the Ohio Board of Pharmacy that the board is to charge an examination fee of \$5 for pharmacists and \$3 for assistants, the reason given being that a great many young men try the examinations just to see what they are like.

In 1884 there were 3,642 pharmacists in Ohio, but in 1894 only 2,895. During the past year there were 561 applicants, 378 for pharmacists and 183 for assistants. Only 47 per cent. of the number passed, and were registered. The State Board insists that it is impossible for it to prosecute the reported offenders of the pharmacy laws, as it has not the time to investigate the charges.

During the discussion of questions pertaining to pharmacy the visiting ladies, under the care of the Ladies' Committee, took a drive through the suburbs, landing at the Zoo in time to enjoy a nice lunch which Manager Will Heck had had prepared for them. The grand concert at the Music Hall was the closing feature of the day.

At the final session on Thursday morning the newly elected officers were installed. When the question of a meeting place for next year came up the supporters of both Cleveland and Steubenville weakened and the speech of Treasurer Von Stein won the battle for Upper Sandusky. The meeting there will be held in the second week of next June. Ex-President Hechler insisted that something be done about druggists who sell proprietary

medicines at cost. He favored a plan of forming a separate organization for making these remedies and selling them to druggists for 10 per cent. above the cost price. The proposition, while meeting with some encouragement, was laid over until next year, a committee being appointed to investigate the matter. Resolutions of an appropriate kind were passed thanking the citizens of the Queen City for the many kindnesses extended to the members during their stay in Cincinnati.

In the afternoon the visitors took a trip on the Ohio to Anderson's Ferry.

A party of the aptively inclined pharmacists went to Coney Island, where the day was spent in the many pleasures which that resort affords. There were dancing and music and feasting. A great game of baseball was played by two nines made up and denominated as follows: Pill Rollers—A. W. Bain, c.; J. H. Hoeveling, p.; Al Melinger, s. a.; C. T. P. Fennel, 1st b.; Geo. Kellus, 2d b.; Lou Sauer, 3d b.; W. Wagner, 1. f.; H. Strelthorst, c. f.; E. Helmenan, r. f. Pestle Jammers—J. Hall, c.; J. Eichberg, p.; Ed Vos, s. a.; J. C. Otis, 1st b.; H. Justis, 2d b.; L. Kusniek, 3d b.; W. Dotsey, 1. f.; H. Hoberg, c. f.; J. Dehner, r. f. The score was 19 to 10 in favor of the Pill Rollers, but there was no sleep lost that night on account of the result. Taken altogether the convention was a success, and the local druggists are sorry their visiting brethren couldn't remain longer in the city.

After adjourning sine die Friday morning, the association found itself surrounded by a series of railroad troubles, which kept Secretary Hopp busy. The railroads refused to recognize the special tariff rate—full fare going, one-third returning—issued to the members of the association. The reason assigned was that the Cleveland and Columbus druggists and pharmacists from other cities got a special rate of two cents a mile, so the companies evaded up matters by compelling the country members to pay full fare. There was a small-sized row over this.

A FEW FALLEN SCRAPS.

Secretary Hopp was the busiest man in town.

President Fennel bore his honors with good grace.

"Uncle" John Keeshan failed to attend the several sessions.

Treasurer Von Stein vouched for the good fishing at Upper Sandusky.

Ed Voss danced at Coney Island like a French dancing master on a lark.

Johnny Bauer of Sycamore and Milton handed around a few good cigars.

Benny Isaacs, Sharp & Dohme's man, knew every one at the convention.

Louie Hechler was there yet. He's a good fellow sometimes already once.

Dr. John C. Otis, the next Corner, jollied the delegates for practice sake.

Andy Bain spent a great deal of his time "rubbering" among the samples.

Speaking of beer, those fellows from Cleveland are judges of the malt fluid.

John Falon and Louis Klayer were always together at the various meetings.

Every one talked about the "Moving Day" number of The Pharmaceutical Era.

New England Wholesale Drug Exchange met in annual convention at the Summer residence of its newly elected president, William O. Blanding, at Rumboldt Point, in Barrington, May 23. The trade was well represented, and the afternoon was devoted to a social time, which was particularly enjoyed by all present. Officers elected are: President, William O. Blanding, Providence; vice-president, Thomas Sisson, Hartford, Ct.; secretary, Frederick L. Carter, Boston; treasurer, Charles C. Goodwin, Boston. Member of Executive Committee—John D. Gilman, Boston. Besides the above named there were present Thomas Sisson, Hartford; Charles W. Whittlesey and F. S. Calhoun, New Haven; Hugh H. Osgood, Norwich; Benjamin J. Wilson, Reuben L. Richardson, Charles A. West, E. W. Cutler, John D. Gilman, Fred L. Carter, Charles F. Cutter, John G. Benedict, Charles C. Goodwin, M. W. Joslyn and George F. Kellogg of Boston; George B. Calder, William C. Calder, Robert B. Chambers, Arthur W. Clafin, William L. Clafin, George F. Woodley, Jr., and Charles G. Abbee of Providence, and Irving M. Smith, Barrington.

Massachusetts Pharmaceutical Association will hold its thirteenth annual meeting at Worcester, June 26-28, with headquarters at the Bay State House. The local committee have arranged an elaborate programme, including a banquet and a carriage drive to Lake Quinsigamond. Tuesday evening, June 26, C. F. Nixon, Ph. G., will give "A talk on the medicinal plants indigenous to Massachusetts," to be followed by a musical entertainment. F. M. Harris, 814 Main street, Worcester, Mass., is the local secretary.

New York State Pharmaceutical Association will hold its sixteenth annual meeting at Saratoga Springs, beginning June 26 and continuing the 27th and 28th. The sessions will be held in the United States Hotel, which will also serve as headquarters. The local secretary, Chas. F. Fish, Saratoga, N. Y., or Clay W. Holmes, secretary, Elmira, N. Y., will answer questions from any one desiring information.

Rhode Island Mortar and Pestle Club (branch of I. R. D. L.) held its regular monthly meeting in Providence May 9. After a banquet, which was enjoyed by about fifty members, F. M. Harris of Worcester, Mass., gave a pleasing account of the work of the league in his county and State. The next meeting of the club will be held at Newport on "Ladies' Day." Ten new members were admitted.

Dallas (Texas) druggists are discussing the necessity of a poison law. In that State there is now no law regulating the sale of poison. Any one is at liberty to go into any drug store, buy poison and take it before the eyes of the druggist. The association resolved to put the matter before the city council, as the nearest executive body, to obtain a law regulating the sale of all poisons.

Maine Pharmaceutical Association will hold its annual meeting in Portland, June 29.

Wheeling (W. Va.) Druggists' Association, formed for the mutual benefit of its members and the regulation of prices, starts off with a membership of nearly every drug man in that city. Officers are: President, C. Menkemeller, Vice-President, Christian Schnep; Secretary, W. H. Hague; Treasurer, C. R. Goetze.

Tennessee Pharmaceutical Association has decided to hold its next annual meeting on the third Wednesday in July, 1905, at Mont Eagle.

Wisconsin Pharmaceutical Association will meet in Racine Aug. 14-16. One and one-third rates will be given by the railroads.

COLLEGES OF PHARMACY.

Massachusetts College of Pharmacy on May 23 graduated seventeen young men. Their names are subjoined: Lewis F. Baker, John Ferrin, Alfred W. Balch, Adam T. McColgan, Albert H. Benhard, John A. McIntosh, Joseph Bergin, John A. Osgood, William S. Briry, Milton H. Plummer, Charles H. Cahill, Irving Nute, Frank H. Coffin, D. A. Roberts, John E. Crowdie, Charles A. Stover, James C. Fausnaught. The following named students have completed the course of study, but have not had the four years' experience required for graduation: Arthur L. Beal, Frank H. Holt, Mary Steele Ewenz, Joseph I. Moulton, Harry Fowler Smith.

When the graduation exercises took place there was a gratifying attendance of relatives and friends. At 8 o'clock the members of the graduating class, who for the first time in the history of the college wore caps and gowns, took their places on the platform, which had been beautifully decorated for the occasion. The proceedings were opened by music by an orchestra. The salutatory was then pronounced by William Story Briry, who spoke in warm terms of the growth of the college, and described its latest year as one of unexampled prosperity. Rev. Daniel Evans, pastor of the Congregational Church of East Weymouth, next delivered the address. Dr. Julian W. Baird delivered the valedictory address for the faculty of the college. Among other things he said new courses had been added, the old ones had been improved, and he was sure the students in the future would maintain and increase the reputation of the college, which now stood second to no other institution of like kind in the country. James Cherry Fausnaught delivered the valedictory address for the class, and Secretary Charles C. Williams, having called the roll, President William F. Sawyer conferred the degree of "Ph. G." upon the graduates.

The next evening the cardinal and cream of the College of Pharmacy decorated the menus of the alumni at Young's. The graduates have had an annual dinner each of the last twenty-four years, and this one was complimentary to the seventeen young men of the class of '94, who had just received their diplomas. The graduates, almost a hundred of them, brought their lady friends, and had a right merry time. An orchestra enlivened the interval between speeches, and also played during the dinner. President

MICHIGAN UNIVERSITY NOTES.

A. E. Mummery, Ph. C., '85, has opened a new and modern pharmacy on the corner of Washington and Fourth streets.

W. F. Jackman, Ph. C., '87, druggist in Detroit, was here on the 5d errand of laying away in the cemetery his wife, who died in Detroit, Thursday evening, May 31.

The laboratory closes on Friday, June 15. In consequence the seniors have redoubled their energy and are working with a will upon their special theses. These, together with review quizzes and final examinations, "Make the Seniors' determination strong." Class day preparations are complete, and class enthusiasm is rampant. The boys are carrying canes and giving the "Waheoi! Catechu!" yell, at every opportunity.

Prof. A. B. Stevens is giving the senior pharmacists a very interesting and instructive course of lectures on prescriptions, supplemented with the stereopticon. Facsimiles of physicians' prescriptions are thrown on a large screen, read and criticised by the class, and suggestions made as to the proper method of compounding them. In case of disagreement some one is appointed to compound the prescription and report on it at the next lecture.

The pharmacy students, accompanied by Profs. Stevens and Schlotterbeck, and the electrical engineering students, with Profs. Carhart and Patterson, paid a visit to Detroit on the 29th ult., the pharmacists to inspect the large pharmaceutical laboratories, and the engineers the electrical plants. On arriving in Detroit pharmacists proceeded immediately to the laboratory of Frederick Sterns & Co. Here in squads of nine, each under the leadership of a competent guide, they were shown through the immense establishment. It was very interesting to trace the crude drugs from their entrance into the laboratory, through many rooms, into innumerable preparations, and finally leaving them packed and variously labeled, ready for transportation. The ladies were especially interested in the department devoted to the manufacture of pasteboard boxes of various designs, and each received a handsome one before leaving the room. The students sampled Wine of Cod Liver Oil, and some of them were even accused by classmates of deserting their squad and joining another in order to pass once more through that room. The perfumery department was of interest to all, and each student received a handsome souvenir, designed especially in honor of his visit. After an hour and a half of entertainment the pharmacists again found themselves back at the main entrance. Here Prof. Stevens, with a few fitting remarks, introduced F. K. Stearns to the class, and after three cheers for Frederick Sterns, followed by other vocal demonstrations indicative of appreciation of the kind courtesies shown them, the class disbanded for lunch and a short rest with orders to meet on the corner of Woodward and Jefferson avenues later, to proceed on their further course of inspection of Detroit's pharmaceutical enterprises.

Northwestern University, School of Pharmacy, Alumni Association, has become incorporated.

CORRESPONDENCE.

We accept no responsibility for the views and utterances of our correspondents. Contributions must carry full name and address of the writers, which, however, will not be published, if so requested. Copy should reach us ten days in advance of date of issue.

THE HAYES PLAN.

To the Universal Trade Association of Detroit, Mich.

I just read an open letter addressed to the Chicago members of the Universal Trade Association. The writer of the letter was evidently prompted by a desire to discredit my report to the Chicago members of the Universal Trade Association.

I can well afford to ignore your statement that I am not a stockholder, but the fact remains that I was the official delegate of the Chicago stockholders and the Chicago Retail Druggists' Association, sent to Lowell to ascertain whether or not the Lowell manufacturers were as enthusiastic in their support of the "Hayes" plan as Mr. Hayes represented to the Chicago druggists at various meetings.

After my return from Lowell I reported that the Lowell manufacturers were not enthusiastic and positively declined to adopt the "Hayes" plan and assured me that they so informed Mr. Hayes. Therefore the report of Mr. Hayes that the Lowell manufacturers were enthusiastic about his plan was entirely imaginary and not warranted by facts.

I repeat this report in every respect and challenge Mr. Hayes to prove the truth of his imaginary representation, while I positively declare to the retail druggists of the United States, and to Mr. Hayes individually, that I am prepared to substantiate the truthfulness of my report.

This is all that I care to say at present. Had I more time I would have written a shorter letter.

I decline to enter into a discussion of the "Hayes" plan without the support of the manufacturers.

I furthermore decline to discuss the purpose of Mr. Hayes to represent to prospective stockholders what he knew to be not warranted by facts. After again declaring that I went to Lowell for a specific purpose, and made my point, I shall rest content to let the stockholders settle the matter with Mr. Hayes.

I must, however, briefly refer to my Detroit investigation. Mr. Hayes obtained a liberal support in Chicago on the strength of his statement that 2,400 shares of the Universal Trade Association stock had been sold to Detroit retail druggists and about \$3,000 of the association money was in bank, and not a share had been sold, would be sold or could be sold to anybody but a retail druggist; that all of the officers and directors of the Universal Trade Association were retail druggists and nobody could be connected with the concern but retail druggists.

Mr. Henry Getz and myself went to Detroit to verify these statements. This is what we found:

President and General Manager, Mr. N. Hayes; Vice-President, Mr. Wagner, a

Craig recommended the attention of all pharmacists to research and advanced methods, that the members might do more than the necessary routine duties of a pharmacist. Addresses were made by President Sawyer for the college and C. A. Stover for the class of '94. Prof. Robert W. Greenleaf, for the faculty, made a most interesting address, showing the progress of the school, and touching upon many phases of pharmaceutical training. He stated that the management of the school intended to confer with President Eliot with a view of gaining such practical suggestions as it could in regard to strengthening the general education of its pupils. Several of the members of '83 made short addresses, and the president of the State Society congratulated the alumni upon their reputation and standing. Among the prominent gentlemen present were President William F. Craig, F. H. Butler, Lowell, Secretary State Board of Pharmacy; J. Allen Rice, president State Pharmaceutical Association; President W. F. Sawyer of the college; Rev. D. Evans, East Weymouth; Profs. Tucker, Marlowe and Baird; James O. Jordan, Boston Druggists' Association; A. K. Tilden, Massachusetts Board, and W. F. Cate, Rhode Island Board of Pharmacy.

The officers of the alumni for the following year are: President, W. F. Craig; Lynn; Vice-Presidents, F. H. Carver, Plymouth, and F. L. Decker, Salem; Secretary, W. L. Scoville, Boston; Treasurer, J. Allen Talley, Wellesley; Auditor, J. G. Godding, Boston.

Ohio Normal University, Department of Pharmacy, graduated the following twenty-six gentlemen at its commencement exercises held recently: Alfred B. Thompson, Hudson, Mich.; Frank H. Snyder, Mahanoy City, Pa.; George L. Saunders, Lancaster, O.; Harry O. Peters, Alvarado, O.; W. Carlton Collins, Blue Bell, O.; Harry Blankmeyer, Hanging Rock, O.; W. L. Hewitt, Waynesburg, O.; Walter Newburn, Jr., Brooklyn, N. Y.; F. M. Miller, Shawnee, O.; D. H. Fobes, South New Lyme, O.; T. H. Collamore, West Unity, O.; H. N. Karchner, Jr., Nescopec, Pa.; Wm. A. Melkie, Lancaster, O.; E. E. Youse, Hoagland, Ind.; G. A. Larson, Pine Knob, Wis.; J. Harry Ulrichson, Williamsport, Pa.; R. E. Kincaid, Hersey, Mich.; O. B. Thuma, Shauks, O.; J. B. Oliver, Dayton, O.; Theo. E. Siewert, St. Marys, O.; M. H. Plomerfelt, Gettysburg, O.; Harv. A. Twining, Haskins, O.; Maynard Dalton Brown, Wauseon, O.; T. J. Evans, Columbus, O.; W. Herbert Nivins, Carrollton, O.; C. J. Williamson, Spoe, O. The class was the largest ever graduated from the department. H. O. Peters, salutatorian, W. C. Collins valedictorian, H. A. Twining class poet, J. H. Ulrich and Walter Newburn class historians and G. L. Saunders and Harry Blankmeyer class prophets. Professor N. R. Melhorn delivered the class address.

University of Minnesota College of Pharmacy conferred the degree of Ph. G. on the following gentlemen June 7: Miller Thompson Bolton, Alfred B. Hart, Enoch Hangseth, Thomas W. Hovorka, Bernhard O. Leubner, Lucy H. A. Blanchard completed the course in pharmacognosy, and L. C. Chapple that in pharmacy and in chemistry. The following were promoted to the senior class: Robert T. Burke, Dan Farmer, A. H. Fieldstadt, W. C. Haney, A. H. Hillard, Alice Houlson, G. W. Iltis, John Nelson, I. C. Olson, Frank Repple, S. F. Sanderson. Specials: Fred Slight, W. W. Root.

tobacco merchant, Secretary, Mr. Marble, a young man who had no books, no list of stockholders, and, in fact, did not have the slightest knowledge of the affairs of the association, but referred us to the treasurer, an estimable, genial coal merchant, who naively pleaded guilty, and said that he had \$10 in the treasury some time ago, but when Mr. Hayes asked him for a loan to make a trip to Chicago he generously forked over the paid-up capital of \$10, which completely exhausted the official treasury of the concern.

Mr. Connor, the coal merchant and treasurer, finally admitted that he had been in possession of a certified check of \$50, which had been sent to him by the financial agent of the Chicago branch of the Universal Trade Association. This check, by the way, had been given by Mr. Goetz, the financial agent, to Mr. Hayes in a sealed envelope addressed to the Universal Trade Association of Detroit. Mr. Hayes apparently had used the precaution, in anticipation of coming trouble, to have this check removed from the envelope for the purpose of certification.

Mr. Connor, the coal merchant and treasurer of the Universal Trade Association, further stated that his resignation had been tendered to the president and general manager, Mr. Hayes. His reason was simply disgust with the concern. Mr. Connor, coal merchant and treasurer, was ready to deliver this certified Chicago check to the proper authorities on condition that he be paid \$50 for his services.

Mr. Connor, the coal merchant and treasurer, further stated that the shares which he owned were presented to him by Mr. Hayes for previous services.

Mr. C. E. Marble, the secretary, stated that he had paid \$1,500 in hard cash for his shares, which statement Mr. Hayes flatly contradicted by saying he only received \$100 from the gentleman, which we could not find in the treasury, or any record of it anywhere. We carefully searched for the other stockholders mentioned by Mr. Hayes among the retail druggists of Detroit, but found that they were only indorsers at best of the plan, the majority of whom were not personally acquainted with Mr. Hayes, hardly knew anything about the plan, and denied having taken any stock at all.

This much in verification of Mr. Hayes' statement about his enthusiastic support by the Detroit retail druggists.

Since my statement has been challenged in an open letter I am compelled to make my answer in the same way, soliciting the widest publication of the same. Most sincerely yours,
E. VON HERMANN,
Chicago, Ill.

Michigan Pharmaceutical Association will hold its twelfth annual meeting in Detroit, Sept. 13-21, during the session of the State Fair. It has a membership of 600, a good showing for any pharmaceutical association at the present time. Many valuable papers have been promised for the occasion, and every member is expected to contribute something of interest to pharmacists. The programme containing full particulars will be sent to members and others at an early day.

THE CUTLER.

To the Editor:

We congratulate you upon your change from Detroit to the metropolis of America. Glad to see all the evidences of prosperity, and as the exponent of the most advanced ideas of pharmacy you deserve to succeed.

The writer is not (to his knowledge) acquainted with your Cincinnati correspondent, but considers his report well up to the average. He might say that Cincinnati has the cut-price fever bad. Just one of those cases where confidence seems all gone, and hardly any ten out of the 20 odd would consent to meet in any kind of organization, because of a want of confidence and harmony. The prominent reason for this is that the "man across the way" has done this or that, and "I propose to be up and doing" and meet all competition, and, if necessary, go him "one better." The present demoralization is due, in the main, to the class who could not pass an examination of a "2-year-old," yet know more tricks than any circus mule in America. The great unthinking class that want something for nothing grasp baits that lead to their being "anded" in short order, and, of course, they don't know how it came about, or, in fact, that it occurred. The druggist that makes a Cheap John affair of his shop is to be pitied, if not damned, though the latter is generally the case. The more ignorant the dealer the greater the disposition to cut the life out of the profits, and he is of that character that the policy of "never say die" prevails.

Hood's Sarsaparilla, 67c., and aqua ammonia, with a superabundance of "aqua," 5c. per pint; hay rum and elixirs and decoctions far more valuable (?) than the advertised and called-for goods of everyday sale, and the gulping "public" take them in nine times out of seven. Wonder is why hobby-horses, bicycles and nigger babies are not put in as "inducements" for trade. We may come to it later on; but, thank "heaving," we are not there yet.

The State Pharmaceutical Association convenes here next week. It remains to be seen what can be done for the progress of the drug business; but it is to be hoped that the evils referred to will be discussed dispassionately, and great good accrue by a united action and a wise course generally. Now, if ever, is the time to stand together, and we hope for great results. With best wishes,
"UBIQUITOUS,"

Cincinnati, June 1.

WHAT THE DRUGGIST MUST KNOW.

Casteria.
Pisces Cure.
Beef Iron'n.
Elix. Lactopep.
arnicker.
benence.
Lick'wd Campbor 5c.
5 cents spice rub erd.
Please ginn him 10 cts worth of Ivarpoecker or something like that name I have most forgot.
Please give this boy 5 c worth of Old Casteel Sype.
5 Glisserrine
5 Balsam compemby

Aasfridge pills
Helioma
pelstar
Sweet spirits Nighter
Sedley Powder
Rai suvella
5 cts yummgiakum
5 cts Hielaplaaky.
5 cts clord potaah
P'leas a half ounce of oil of peneroll
Asseffity 5 c.
P'leas give boy A One Ounce Schringe for the Gonoreha
Meratic. Acid
gum thragt 5 c.
Seene mem for fisk
One 2¢ bottle of white cough syrup it looks as if their was moss in it. Don't know the name.
Obedelduck.
Scotle mockle
10 cents Roses of supplement.
Stetless powder for the stomach
Red percipity fur de crabs and some
Balsam to mix with it.
bukle leaves
rshiel salts.

E. J. KRETZ, Pittsburg, Pa.

Contributions are also made by N. P. Westberg of Madison, Minn.; D. D. Turner, Northfield, Minn., and others, which are not published because these queer orders lose much on being put in cold type.

DRUGGIST'S ADVERTISING.

To the Editor:

My little article on advertising, accompanied by reproductions of three of my ads., in your May 1st issue, has occasioned almost innumerable inquiries in regard to the process I employ in getting up my cuts, and my typewriter has been going almost constantly, since about the 5th or 6th of the month, replying to them. These numerous letters lead me to the belief that The Era is read by a great number of druggists, and I write this just to let you know of the numerous responses, as I presume you are always pleased to hear of the good work that you are doing. The inquiries have come from a majority of the States in the Union, and not a small number from the largest cities. Of course this makes me feel that I, through the columns of your excellent journal, have done my brother druggists some good, in that I have set them to thinking in a new channel in regard to style of advertising. Since these inquiries were not solicited, I feel doubly sure that I have done a little good toward advertising. All the inquirers have fallen into the same error in regard to the process which I employ. It is not zinc etching, but engraving, done on steel plates, through plaster paris and other ingredients, and then cast with type metal and blocked. Yours very truly,

A. J. EMBREE,
Belton, Tex., June 5, 1894.

HE WANTS HIGHER WAGES.

To the Editor:

I would like to say just one or two words in remonstrance against the appellation of "Drug Peddlers" by Mr. S. P. Whitmarsh, and that is—pharmacists, pay your clerks larger salaries and you will have fewer "drug peddlings" establishments to compete with. Moral: A word to the wise is sufficient. I. J. WHITE, Philadelphia, Pa.

TRADE COMMENT.

It is said that of all the countries of the earth none can boast of the rapid (comparative) advancement in wealth, science and the arts which has been made during the last ten years by Japan.

William Dreydoppel, wholesale soap manufacturer, 203 North Front street, Philadelphia, has made an assignment. The assignee reports that the liabilities will amount to between \$30,000 and \$40,000, while the assets, including real estate, are from \$15,000 to 20,600.

It is reported that the Italian Government is negotiating with a Belgian syndicate to sell a concession for the manufacture and sale of alcohol within the kingdom. The price for the monopoly is said to be \$8,000,000, with an annual payment of \$9,000,000 for a period extending over fifteen years.

Owing to an oversight the prices quoted for Paris Green, under the heading of "Prices Current," were not revised in our issues of May 15th and June 1st to conform to the changes made by the associated manufacturers of that article. The proper correction will be found in the present issue.

The British war office is considering the feasibility of providing every soldier with a pocket medical and surgical case, and in addition to a course of instruction upon the proper methods of stopping the flow of blood, it is proposed to indicate the leading arteries by dotted lines tattooed in India ink on the body of each soldier.

The Indiana Pharmacist, in mentioning the fact that George W. Sloan's drug store at Indianapolis is called the "Pharmacopolium," and that Harry Zimmer runs the Herbarium, says: "Now, if some other enterprising druggist would christen his place the Chemicalorium, or the Meliclinarium, or the Drugitatorium, or the Apothecarorium, we would be right in it."

The American Glucose Company, Buffalo, N. Y., inform us that it is the present intention of the company to build a new factory to replace the one recently destroyed by fire, but just where it will be located is still undetermined. In the mean time their factory at Peoria, Ill., is in full operation, although somewhat handicapped by the coal strike.

The Supreme Court of Georgia has decided that the words "more or less" mean accidental variations which are not unreasonable. This applies to sales of personality as well as realty, and to excesses as well as deficiencies. It allows for a reasonable latitude in the performance of an obligation, but not a wide variance from the mutual estimate of both parties.

California has 80,000 acres of land devoted to the culture of wine grapes, and 110,000 acres planted with table and raisin grapes. The annual production of wine is estimated at 25,000,000 gallons, and the number of wine cellars is in the neighborhood of 700.

"Engineering" of London says that the deepest borehole in the earth is one now being sunk at Poroschowitz, in the Rybnik district, Upper Silesia. The work is carried on by means of the Mannesman tube, and a depth of 6,700 feet has already been reached. It is the intention to reach, if possible, a depth of 8,500 feet for the purpose of making observations upon temperature and other phenomena of scientific interest.

A writer in the Baltimore American suggests that many portions of the Southern States having light sandy soils might be found to be adapted for the growing of licorice. It has been found to be a very profitable crop in Belgium and in western England, where several hundred acres yielded \$250 to \$350 per acre. It is said that with improved methods of cultivation an acre of licorice can be worked as cheaply as an acre of corn.

Much amusement was lately created by the story of the man who swallowed some leeches which had been prescribed for him, under the impression that they were intended for internal use. We note, however, that Dr. Sahli of Berne presented a paper upon the therapeutical action of an extract of leeches at the recent meeting of the International Medical Congress. The victim of the error can now claim credit for being in line with advanced medical research.

Upon complaint being made that the actual weight was taken as the basis for assessing duty on soda ash at Philadelphia and New York, while invoice weights were used at Boston, the Assistant Secretary of the Treasury has replied that such is not the case, the practice being to weigh a certain percentage where the packages are of uniform size, or all the packages when not of uniform size. No allowance is made for the increase of weight by the absorption of moisture from the atmosphere.

Besides doing many things which appear strange to us, the Chinese use India ink as a medicinal agent, both externally and internally, and also regard it as an excellent barometer. The laundryman always keeps a dish of it diluted to a certain consistency on his desk for the clerical labors of his establishment, and finds that when it remains in a liquid state for considerable time without further dilution that the chances are favorable for more rain while an opposite condition of affairs renders a prognostication of drought quite appropriate.

The Sandusky Chemical Co., Sandusky, Ohio, make a specialty of oil of sassafras and oil of camphor. They are also making other synthetic oils in quantities.

There is a jar of ointment 3,000 years old in the museum of the Duke of Northumberland at Alnwick, which is treasured as a rare example of the pharmaceutical abilities of the ancient Egyptians. Notwithstanding its great antiquity, it still retains a powerful smell, which is held to be an additional evidence of the thoroughness of the pharmaceutical methods of the ancients. Should this standard of judging ability be reliable there is no doubt that many of our pharmacists could show ointments of their own fabrication, whose odor would indicate an age of at least 10,000 years.

The American method of transporting liquids by means of tanks is to be employed by the Paris-Lyons-Mediterranean Railway Company of France. This road passes through the richest and most productive wine region of that country, and the gradual lowering of the prices of wine during the last few years has made it imperative to lower the cost of production, into which the item of transportation enters quite largely. The tanks recently put into service by the railroad named are of a capacity of about twelve barrels, and a great saving will be effected in the handling of this product.

Among the recommendations recently laid before the House of Representatives is one from Secretary Carlisle, favoring the publication, at stated intervals, of a statistical abstract of foreign countries. An interest in the commerce, industries and economic affairs of foreign countries seems to have been newly awakened in this country, and the inquiries regarding such matters are making considerable demand upon the already overburdened facilities of the Bureau of Statistics. It is thought that a regular publication of such matters will obviate the necessity of personal replies to these inquiries, and the expense to the government will not be appreciably augmented.

The Red Cross bill, forbidding the use of the red cross as a trade mark, except by permission of the Red Cross Society and the payment of \$500, referred to in a previous number of *The Era*, has been reported upon unfavorably by the subcommittee of the Senate, and the bill is probably dead. There is something quite significant in the history of this bill, which leads to the suspicion that the motives for its introduction were not entirely of a disinterested nature. This view of the matter has justification in the fact that one of the parties requesting its withdrawal was none other than Miss Clara Barton, the recognized head of the Red Cross Societies.

It may interest the trade in general to learn that Meyers Brothers Drug Company, of Dallas, Texas, have disposed of their stock to H. W. Williams & Co., Fort Worth, Texas, who will remove it to the latter city. Dallas, however, is not to be without a wholesale drug house, for the Texas Drug Company has been organized, with a capital stock of \$100,000, to carry on such a business, and they expect to open their doors July 1. The officers of the company are well-known drug men, the president being Guy Sumpter, vice president, Yancey Bartholow, secretary and treasurer, H. P. McKnight.

We understand that they will carry on an exclusive wholesale drug business, the retail part to be entirely eliminated. They have extended an invitation to the traveling fraternity to make use of their offices when in Dallas, which invitation we have no doubt will be quite freely accepted. They also solicit samples and advertising matter from manufacturers, proprietors and dealers, as well as correspondence from those contemplating the introduction in Texas of goods in which the drug trade is interested. We refer our readers to their announcement in this issue.

The official classification No. 13, adopted by the joint committee representing the trunk lines, which went into effect May 1, seems to call for further protests from those whose interests will be affected by the shirking of carriers' risks by the railway companies. At the top of every page of the classification the following note appears: "Property shipped not subject to uniform bill of lading conditions will be charged twenty (20) per cent. higher than as herein provided (subject to a minimum increase of one (1) per cent. per 100 pounds) and cost of marine insurance. (See rule 1.)"

Rule 1, to which this refers, is as follows:

"Unless otherwise provided in this classification, property will be carried at the reduced class rates specified herein, if shipped subject to the conditions of the uniform bill of lading. If shipper elects not to accept the said reduced class rates and conditions, he should so notify the agent of the receiving carrier at the time his property is offered for shipment, and if he does not give such notice, it will be understood that he desires his property carried subject to uniform bill of lading conditions in order to secure the reduced class rate thereon. Property carried not subject to the conditions of the uniform bill of lading will be at the carriers' liability, limited only as provided by common law and by the laws of the United States and of the several States, in so far as they apply. Property thus carried will be charged twenty (20) per cent. higher (subject to a minimum increase of one (1) per cent. per 100 pounds) than if shipped subject to the conditions of the uniform bill of lading, and the cost of marine insurance will be added over any part of the route that may be by water."

Condition No. 1, of the uniform bill of lading is as follows: "No carrier or party in possession of all or any of the property herein described shall be liable for any loss thereof or damage thereto, by causes beyond its control, or by floods, or by fire,

or by quarantine; or by riots, strikes or stoppage of labor; or by leakage, breakage, chafing, loss in weight, changes in weather, heat, frost, wet or decay; or from any cause if it be necessary or is usual to carry such property upon open cars."

A SUBSTITUTE FOR COFFEE.

The above is the title of a bulletin issued by Purdue University Agricultural Experiment Station, the purpose of which is to direct attention to an easily available substitute, capable of being grown without special care in northern latitudes of the United States, viz.: the Soy or Soja bean (*soja hispida*). This is a Japanese plant of upright, stiff, bushy form, attaining, under favorable circumstances a height of three feet. There are three large leaves on a leaf stem, from the axils of which come short flower shoots, producing at maturity pods in clusters of two and three. Each pod contains from two to four seeds, a little longer than broad, being about three-eighths of an inch in length. The plant sends a vigorous root down into the soil, and the leaves, stem and pods are, as a rule, very hairy. One planter of these beans reports an exceptional yield of 782 beans on one stalk and sixteen bushels upon an acre. An analysis of the bean, made by Prof. Huston, in the college laboratory, showed the following as its constituents: Moisture, 6.36; fat, 18.34; protein, 32.93; fibre, 5.59; ash, 5.81; carbohydrates, 31.05; total nitrogen, 5.27; albumenoid nitrogen, 5.13; real albumenoids, 32.10. Soy beans lack the alkaloid, caffeine, which gives to coffee its characteristic taste and physiological action, but they contain, according to Stings and Morawski, a ferment said to be one of the most powerful known in its action upon starch, two-thirds of which it converts into sugar and one-third into dextrin. The amount of starch present in the beans is so little that bread made from them has been recommended in diabetes. Soy beans are not suggested as a substitute for coffee in the sense that the peculiar flavor or action of its alkaloid can be imitated, but those who have tried them aver that a drink made from them is much more enjoyable than a great deal of the so-called coffee served in some hotels and restaurants, and that the flavor is much more agreeable than that of the usual coffee substitutes, such as roasted rye, barley, carrots, chicory or wheat bran.

NUMERALS AS TRADE MARKS.

In the case of the Humphrey's Homoeopathic Remedy Company against Hilton, to restrain the latter from using certain numerals in connection with the name of remedies, which the complainants claimed as part of their trade-mark, the United States Circuit Court for the Southern District of New York decided adversely to the plaintiffs. The defendant manufactured and sold remedies upon which were labels bearing the number of the remedy, very much upon the same style as the Humphrey's Specifics, such as "No. 1 Fever," etc. In its decision the Court said: "Mere numerals cannot be considered arbitrary symbols, and there

must be some collateral characteristics to invest them with the qualities of a trade-mark—some peculiarity of form, ornamentation, coloring or combination to make them distinctive and take them out of the common category. It may be that numerals which are arbitrarily selected with out any purpose of identifying the article to which they are affixed from any articles of a similar class may become the subject of a trade-mark; but the use of numerals as a short method of identifying the several members of a class and distinguishing one of them from another is as old as the use of written words. When so used they are, in substance and effect, descriptive terms. The number conveys to the reader details which otherwise would have to be amplified in words. Hence, it is that the practice is so common with manufacturers and dealers of numbering the varettes so as to indicate by reference to advertisements, photographs or other descriptive mediums the size, grade or peculiar characteristics of each for their own convenience and that of their customers. No one can acquire an exclusive right to appropriate them for such a purpose. No one has the right to appropriate to his exclusive use a sign or symbol which, from the nature of the fact it is used to signify, others may employ with equal truth, and, therefore, have an equal right to employ for the same purpose. It is because of this principle that a trade-mark cannot be acquired by the adoption of a word which is merely descriptive of the quality, ingredients or characteristics of a commodity."

"ONE NIGHT" CURES.

The Official Gazette of the Post Office for May 1, contains the decision of the United States Supreme Court upon the question of infringement of trade-mark claimed in the words "One night," etc., as applied to the products of two rival manufacturers of cough syrup. As the matter has commanded considerable attention, the decision of the court, while depending to a certain extent upon technicalities, and the skill with which evidence was presented by the contending parties, is of quite a little interest to the drug trade. From the statement of the case it appears that the Kohler Medicine Company of Baltimore manufactured in 1888 a preparation called "Rocky Mountain Cough Syrup," and in 1889 put up a "One Night Cough Cure." During 1889 the stock of labels for the cough cure gave out and it was re-christened "One Night Cough Cure," and written labels were used. In December, 1890, the Kohler Medicine Company registered the words "One night cure" for a cough remedy and a cough cure, and in January, 1891, Ellsworth S. Beshore registered the words "One Night Cough Cure," with the result that the Circuit Court of the Eastern District of Pennsylvania dismissed a bill of complaint from the Kohler Manufacturing Company, virtually agreeing with the defendant, Beshore, that the word "cough" had been interpolated into the registered title "One Night Cure" of the complainants, after its registry by the defendant. The Supreme Court, while deciding the case in favor of the defendant, upon the "facts

and law," as dealt with the court below, has this to say upon a certain aspect of the case:

"It has been more than once held in this circuit that courts of equity will not intervene by injunction in disputes between the owners of quack medicines, meaning thereby remedies or specifics whose composition is kept secret, and which are sold, to be used by the purchasers without the advice of regular or licensed physicians. In the present case, the so-called trade-mark, "One Night Cough Cure," asserts a manifest falsehood or physiological impossibility. A cough or cold so far-seated as to require medical treatment cannot be cured in a single night, and a pretense to the contrary is obviously an imposition upon the ignorant. If it be said that the Court cannot take notice of such a state of facts, and that there is no evidence from which the Court can infer it, we can at all events take notice of the plaintiff's evidence, whereby it is shown that the trade-mark in question was not selected because experience had shown that the nostrum availed to cure coughs and colds within the period of a single night, but because a similar trade-mark or designation "One Night Corn Cure" had proved to be a popular and taking one." In view of this deliverance from the highest court of the land, it is a matter for considerable conjecture how any of the many "sure cures," "instantaneous reliefs," etc., would fare at the hands of a tribunal which takes cognizance of physiological possibilities.

CO-OPERATIVE TRADING.

As was expected, the celebration of the jubilee year of co-operation in England has created considerable interest by calling attention to the great progress made by co-operative societies since the foundation of the Rochdale society of twenty-eight persons, with £3 as capital, just fifty years ago. The proceedings of the Twenty-sixth Annual Co-operative Congress, recently held at Sunderland, England, shows many statistics bearing upon the growth and present status of such organizations, and at the same time seem to furnish data for prophesying the good effect which co-operation may furnish in the near future in solving industrial problems, which are at present peculiarly aggravating. The report of the Central Board does not seek to disguise the fact that the last year has been a trying one for the societies, and that trade has shown a great decline. There were, however, at the end of last year 1,855 societies, with a membership of 1,298,557, an increase of nearly 60,000 members as compared with the previous year. The total investments of the societies showed an increase of nearly \$1,000,000, while the sales and profits, amounting to \$250,000,000 and \$33,000,000, respectively, show a slight decrease. The Co-operative Insurance Society showed a fund, exclusive of capital, of \$180,000,000, and an increase of eighteen societies during the year. One of the questions that came up for discussion was one which hardly ever intrudes in meetings of ordinary business corporations. It was the problem of the

disposition of the profits. The president of the congress deplored the unfortunate existence of any profit to wrangle over, and characterized profit over cost as one of the many devices originated to enable one portion of the community to appropriate the wealth produced by another. The condition was referred to as one which should not be allowed to exist in a properly conducted co-operative community. Suggestions were made that profit might be handed over to the capitalist, who supplied the instruments of production, as is done in regular trade; it might be given to the laborer, who performed the work through the means furnished by the capitalist; or it might be returned to the purchaser, who had paid the advance over cost which made profit possible; but the one aim, whatever plan should be adopted, must be the better and more equal distribution of wealth. The congress also passed a resolution condemning the practice of credit trading, it being the sense of the assembly that "the time has arrived when there should be instituted a general crusade against this perilous system, which is to a large extent crippling the influence of the movement for good; and there is no disguising the fact that, so long as credit retains its present hold among thousands, the development of the movement is immensely retarded." The most advanced co-operators were quite sanguine that the question of co-operative production would receive attention, but the discussion which was given it failed to disclose any decided trend of opinion. However, if there is any truth in the sayings which comfort us in our present way of doing business, the fact that "nothing succeeds like success" and that "money talks" may convince us that there is a great deal in the co-operative plan of trading, as disclosed by its jubilee celebration.

HINTS ON ADVERTISING AND DRESS.

Ever since the well-authenticated instance where Joseph appeared in a coat of many colors and aroused the envy of his brethren there has been a well-defined tendency among all sorts and conditions of people to pursue a similar course by striving to outdo in the matter of those things which pertain to personal appearance. But each year the requirements for entry in the universal dress parade have become more strict, until the man whom nature has not endowed with sufficient stature to tower above the crowd must exercise what brains he may possess from the average level, and use the means at his command to make an appearance which will evoke favorable attention from his fellows. This sartorial idea is one which finds illustration in the general tendency of the business of advertising. As the decision as to what the majority of people will wear always depends upon what a very decided majority are wearing, so the general aspect of advertising as a whole takes its style and force from the successful advertisement. There is nothing unnatural or strange in this. If the correct thing in that great art of attracting attention—dress—is learned by studying a fashion plate emanating from Paris or London, is it not within the range of propriety to expect that perfection in

that greater art of attracting attention—advertising—may be approached by studying those efforts in the latter line which public opinion has stamped as effective? This idea of a fashion plate for advertising is not so far-fetched as might appear. A glance at the work of our professional "ad" writers only proves the existence of its prototype. The fabric out of which these clever literary tailors are now constructing their garments is mostly "De Vinne" with varied trimmings. The cut is much the same as regards variety, even if the patterns do appear quite numerous. The range from elegant dress suit to pea-jacket is apparently great, but this is a visual error on the part of the beholder; the tailor makes a short step of it, and the printer will tell you that the difference in the attractiveness of an advertisement consists of but a few slight variations which he makes with the type in his composing stick. It will thus be seen that the connection between these two arts of attracting attention is quite marked. The methods are quite the same, and this brings us to an application of the analogies of the situation. The habiliments of the clown and the attire of the tramp, while they are conspicuous, are both out of place in the serious business assembly. Good taste and quiet elegance in attire are always in order, and command attention and respect. Therefore, always be well-dressed in your advertising efforts, and in no way can this be shown to better advantage than in the space which every tradesman should call his own in the local paper. A certain dealer in advertising space in public conveyances puts his own card alongside those of his patrons, and upon it says: "If you read this advertisement, others will read yours." While we believe that every advertiser is careful to read his competitor's advertisements, we believe that he owes a duty to himself to read the advertising of all who happen to be placed near him. He need not do this to find out what they say, but to observe their style. This may savor of the much ridiculed feminine curiosity as regards matters of dress; but a woman usually knows where to find ideas, and an advertiser should endeavor to be just as smart. A glance at a page of newspaper advertisements will show as many inequalities in dress as will an equal attention bestowed upon the throng upon a crowded street, and in the latter the well dressed receive the greatest share of attention. This glance should show the advertiser whether his neighbor's "ads" are cut and fitted properly. If they are not, a little care expended upon his own will give him an advantage. If they are last season's styles, he can consult the fashion plate for the latest designs for his own. If they are all alike—in sack coats, perhaps—let him put on his dress suit. If they never change, let him change at every appearance. In short, let him do just what the other fellows are not doing, as long as it is within the limits of good taste. It may be hinted that if every advertiser were to follow such a course the same absence of variety would soon nullify the extra effort. But there is little danger of this. Advice of this sort is like an exhortation to righteousness—there are but few that heed it.

SICILIAN ESSENTIAL OILS.

The following article appeared in the last number of the British and Foreign Confectioner:

"We have from time to time urged the need of special care in the purchase of essential oils. Recently our attention has been specially directed to the same class of goods by the publication of a most valuable contribution to our knowledge of the chemical and physical properties of the essential oils. We refer to the Pharmacological Record, in which a detailed account of recent researches on Calabrian and Sicilian essences is given by H. Helbing and T. W. Passmore, who are the best authorities on this question. They say:

"The value of the essential oils of the orange family depends so entirely upon their delicacy of flavor and odor that the services of the chemist have, up to the present, only been rarely sought in determining the nature and proportion of the several constituents, except in cases of gross adulteration. Yet it is acknowledged that no class of oils is more subject to sophistication and admixture than the Calabrian and Sicilian essences, and to such an extent is adulteration carried out that the greatest precautions have been necessary in determining the characteristics and composition of the genuine products. The great amount of attention that has been paid of late years to the chemistry of the essential oils has however, not only supplied these necessary factors, but furnished tests and methods of analysis that render the control of these oils a comparatively easy task to experts."

"Messrs. Helbing and Passmore have marked out in detail a most interesting series of experiments dealing with the constitution of certain pure samples of expressed essential oils, such as lemon, tangerine and bergamot.

"The close botanical relationship of the sources of these natural products also finds expression in their composition. The terpene hydrocarbon, limonene, is characteristic of this class of oils, and in most cases is the principal constituent. Pinene and dipentene are also generally present, but in small quantities. Limonene is distinguished by its boiling point 175 to 176 degrees C. As the boiling point of limonene is considerably affected by the presence of other bodies, it is almost impossible to obtain it in an absolutely pure state by simple fractional distillation, because traces of other volatile substances are always carried over with it. It is, however, obtained sufficiently pure to admit of its recognition by its specific gravity—0.846 at 20 degrees C. The limonene of lemon oil and its allies is dextrorotatory to polarized light, and communicates this character to the oils. Although the terpenes possess more or less pronounced pleasant aromatic odors, the peculiar odor of each oil is due to some other constituent, such as citral in lemon and tangerine oils, which though present only in small quantities, can be recognized by chemical tests. All the oils also contain a small quantity of a stearoptene or solid body, which crystallizes and is generally free from odor, though possessing a pungent taste."

Avoiding abstruse chemical details, we

may point out the general methods adopted in these experiments and the results obtained, and then very briefly indicate some inferences that may be drawn from the data obtained. The method of investigation which has been chiefly followed has been an application of the process known to chemists as "fractional distillation." This phrase may not convey a very coherent notion, but it implies broadly the separation of the oil, by the application of heat at carefully regulated temperatures into those numerous distinct bodies which have been produced in nature's wondrous laboratory. These, when united, form those bodies known in commerce as essential oils. So far as present investigations show, certain bodies of paramount importance in determining the flavor and odor of the several oils possess relatively high boiling or distillation points. This being so, there is in many cases a risk either of decomposition when the oils are prepared by distillation, or what amounts practically to the same thing, there is a great risk that certain important constituents may be left behind in the still and may not find their way at all into the oil of commerce when it is prepared by this method.

The first risk was found to occur especially in the case of the bergamot and tangerine oils, and in the former another special risk was noted, caused by the production of a very considerable percentage of acetic acid during the process of distillation, which fully accounts for the production of the peculiar green tint usually considered as characteristic of bergamot oil, but which it would now seem is almost wholly derived from the action of the acetic acid upon the copper storage vessels employed for the exportation of this oil. Wherefore those who use ordinary bergamot oil need not wonder at copper contamination being detected by inquisitive analysts. The last-mentioned risk, that of removal by retention in the still of important flavor and odor-giving constituents of the oil, was found to apply specially to oil of lemon; while in this case actual decomposition was hardly observable. Now, it seems to us that the most reasonable inference to be drawn from above is simply this: If you want to get in the fullest degree the perfect flavor and odor of essential oils, see that you get them, and do not grumble at the price; they are worth paying for, and you get full value for your money. The investigation also clearly illustrates the advantages of expression over distillation in the case of oils which possess such a delicate nature as Sicilian and Calabrian essences. In the case of bergamot and tangerine oils, the unavoidable decomposition of a characteristic constituent by heat and the formation of free acid must not only affect the flavor but also the stability of the oil, while, although lemon oil suffers no actual decomposition as far as could be observed, there is a tendency to leave the citral in the residual products of distillation.

After reading this it occurred to the United States Consul at Messina that the subject warranted an attempt to either verify or disprove the statements of Messrs. Helbing and Passmore, and to that end he addressed the following circular letter to all the manufacturers and shippers of essences in Messina:

"(1) Are there manufactured in and exported from Messina any absolutely pure essential oils of lemon, orange, bergamot, mandarin or bitter orange?

"(2) What is the lowest price (in gold) at which absolutely pure essential oils (state the kind) can be exported to the United States?

"(3) To what countries are the best grades of essential oils exported? If the grades exported to the United States are superior to those exported to other countries, please state the cause.

"(4) In the adulteration of essential oils, what are the adulterants?

"(5) If you have any brands which you will guarantee as being free from any adulterations whatsoever, will you please specify them (giving name of oil), and state if these brands are exported to the United States; and if not, to which countries they are exported?

"(6) Will you please furnish me with a list of all your brands?"

To this letter the subjoined replies were received:

From Fred. Baller & Co.—(1)—Yes; but oil of bergamot is produced only in the province of Reggio, Calabria. We add, with regard to oil of bitter orange, there is always a doubt as to its purity, manufacturers sometimes mixing it before it comes in the market.

(2) To-day's lowest prices per English pound, free on board at Messina in 25-pound jars (copper) are for January shipment: Oil of bergamot, 7s. 5d.; lemon, 4s.; sweet orange, 4s. 4d.; bitter orange, 7s. 2d.; mandarin, 19s. 7d.

(3) The best grades are exported to Paris, the United States and Cologne (Germany).

(4) Principally rectified spirits of turpentine.

(5) We guarantee our oils of bergamot, lemon and sweet orange as being free from any adulteration, and we are shipping them to the United States.

(6) We refer to No. 5.

From W. Sanderson & Sons.—(1) We hardly believe that any of the five essential oils named are sold absolutely pure by the first producers, as a general rule, excepting small quantities, which are made under special supervision of purchasers. Lemon and orange are the essences which can be the least adulterated without detection. Bergamot, bitter orange and mandarin are easier to adulterate, and require greater knowledge and sense of smell to understand what extraneous ingredients are mixed with them.

(2) It being difficult to state that an essence is absolutely pure, one can only consider as pure those which may be so slightly adulterated as to escape detection by experts in the article, and what the prices quoted in the local market reports are for such oils.

(3) The United States take the largest quantities of essential oils in the purest state, other countries also taking their share, but still large quantities of adulterated essences go to America and elsewhere, for cheapness is a great inducement to parties who have little knowledge of qualities.

(4) Usual adulterants are: For bergamot, turpentine, essence of lemon and orange (when their value is lower than bergamot, which is usually the case), and

(2.06 pounds), in copper jars of 6, 12-1-2, 25 and 50 kilograms, including packing, coast freight and insurance to New York: Essence of lemon, \$2.80; essence of orange, \$2.80; essence of bergamot, \$4.40; essence of mandarin, \$10.70; essence of bitter orange, \$3.80.

(3) I hear that of late Paris and Grasse (France), and Leipzig and Cologne (Germany), buy the best essences and pay the highest prices. In the latter country the essences are examined by Abbe's refractometer (which I have in my laboratory), and by other instruments. Some countries, like the United States, including will not pay high prices, and a number of shippers supply them with the adulterated essences.

(4) It is said that many shippers adulterate essences of lemon and orange with oil of turpentine and "olio de colza," and that essence of bergamot is adulterated by common essence of lemon and orange. My registered trade mark is "Marca Siciella" and "Zest" quality of all oils mentioned is, as indicated before, absolutely pure. Same is exported to the United States, Germany, England, Sweden, Norway, Netherlands, etc.

(5) I have only the brand "Marca Siciella" and "I Zest" quality manufactured by myself and "I quality," bought up; for the latter cannot therefore guarantee absolute purity.

From Cailler, Walker & Co.—(1) From Messina a great deal of pure essence is shipped, but we doubt if any goes to the United States.

(2) The prices ruling to-day (per pound, cost and freight to New York), are: pure essence of lemon, \$1.25; \$1.20; essence of bergamot, \$2.15; essence of sweet orange, \$1.35; essence of bitter orange, \$1.50. It must be well borne in mind that this year prices are exceptionally low, and it is not worth the while to adulterate oils. Last year prices were nearly double, and two years ago they were three times the present value.

(3) The only safe way to purchase essence is to pay the full value and to intrust the orders to old, well-known, respectable firms, who are well placed in the districts where the best essences are produced and have competent purchasers. So far, in the United States, it has generally been the habit of buyers to stick principally to cheap prices.

(4) It is generally known that essence is adulterated with oil of turpentine and mineral colza oil, and we are not aware of any other way.

(5) The real pure essence we can guarantee as free from any adulteration. It is made under our strict supervision, and rigorously corresponds to the requisites which modern science has found to distinguish the adulterated essence from the pure, which must be:

Essence of lemon: Specific weight, 0.857, 15 degrees C.; Opt. rotation, plus 62 degrees 100 mm. tube; index of refraction, 1.476, 20 degrees C. Essence of bergamot: Specific weight, 0.860, 15 degrees C.; Opt. rotation, plus 9 degrees to 15 degrees, 100 mm. tube; index of refraction, 1.470, 20 degrees C. Essence of orange: Specific weight, 0.866, 15 degrees C.; Opt. rotation, plus 96 degrees 100 mm. tube; index of refraction, 1.474, 20 degrees C.

The above is the "Super Zest" quality, which we mark with a shield against an anchor. This mark is very much appreciated in France, and also in England and Germany, where they pay its value. We must make you observe that the essence industry is exercised by a lot of small manufacturers and farmers, from whom we purchase the essence, advancing them funds to buy the necessary fruits. The large works, which several exporters boast of having, and the fancy pictures which are painted on show cards, exist only in the imagination of the advertisers, and are only what French call "reclame."

From Glov, Restuccia & Co.—The best grades of essential oils are manufactured

in the neighborhood of Messina, and we, as the oldest and largest manufacturers of the same, supply only the best qualities to all consuming markets. Our brand is well known, and particularly in America, on account of the particular purity and fragrance of our essential oils expressly prepared for flavoring purposes, so that no other inferior essence is shipped from us.

The more or less purity of the essence accrues only from the difference in price. It is not being possible to send very fine goods at very ridiculous figures, and, willing or unwilling, the goods must be mixed up with turpentine. This sort of adulteration is imported from France, and most American firms are now well acquainted with such adulteration, our custom being to send off only the best grades of essences of our make, the same being purchased by all our numerous clients of Germany, France, America, India, Canada, Japan, Australia and the United Kingdom.

From Fratelli de Pasquale & Co.—(1) We can say that there are manufactured in and exported from this town some absolutely pure essential oils of lemon, orange, bergamot, mandarin and bitter orange, but not a large quantity, owing to the keen competition that offers below the first cost, and generally buyers abroad are very rarely willing to pay the right price. Moreover, it is a recognized fact that the majority of importers prefer an adulterated quality to a genuine one, for the simple reason that an essence mixed in a certain proportion of turpentine gives a stronger smell and keeps longer than a pure essential oil, particularly if the latter is not corked and light and air excluded.

(2) The lowest price (in gold) at which we can sell absolutely pure essential oils per English pound, free on board at Messina and all expense included, and payment after arrival and approval of goods at buyers' risk, is as follows: Lemon, \$1.20; bergamot, \$1.85; orange, \$1.30; bitter orange, \$1.85; mandarin, \$5.

(3) The best grades of essential oils are shipped to Great Britain and colonies, mostly lemon and orange, used by the aerated water, cordial, confectionery and perfumery trades. Next we have to mention the French perfumers, who buy the finest bergamot oil, as they are very particular about quality than price. There is also Russia and the United States, where a large quantity of the finest essential oils are exported. In a word, we have to conclude that the best grades of essential oils are generally preferred by buyers who have to employ them in their own products, and not by buyers who have to resell to the trade, as the latter prefer a low price rather than an extra fine quality.

(4) In the adulteration of essential oils the adulterant mostly used is turpentine, much of such purified and perfumed, which is not believed to be deleterious at all.

(5) We have some brands, which we guarantee as being free from any adulteration whatsoever, viz.: "Cedar," oil of lemon, meaning pure oil of lemon; "Rose," sweet orange oil, meaning pure oil of sweet orange; "Carob," bergamot, meaning pure oil of bergamot. We are glad to say that such were awarded the highest prize at the World's Columbian Exhibition, and that the warmest expressions of admiration and favor reach us daily from the trade, particularly from Great Britain, where said essential oils are extensively introduced.

There are now some prominent houses in the United States which appreciate the superiority of our absolutely pure essential oils, which are distinguished from others by their delicious aroma, that recalls the fresh fruit.

However, as we see that some competitors of ours are offering their oils under our above-mentioned denominations, we have been compelled to make a new brand

representing the "Port of Messina," which we are going to have registered, to guarantee the trade against any spurious imitation. In fact, any absolutely pure oils shipped by us will bear henceforward said new label.

(6) The following are all our remaining brands, viz.: "Super Oil Lemon," "Super Oil Bergamot," "Super Oil Sweet Orange," "Super Bitter Orange" and "Mandarin."

From Ig. Siles.—(1) Pure essential oils are exported to the United States, as also adulterated ones, this depending upon the respectability of the exporting firm.

(2) The prices of essential oils, like agricultural produce, being subject to variations, have no fixed value. The price can only be fixed on the day the business is transacted. For example, we quote to-day: Bergamot, 7s. per pound; lemon, 7s. 10d. per pound; sweet orange, 4s. 2d. per pound; bitter orange, 7s. per pound; mandarin, 2s. 4d. per pound.

(3) Pure essential oils are exported to all countries in the same way as adulterated oils, more or less according to the demand, and also according to the knowledge of buyers. Pure essential oils find a larger market in France, Germany and Holland; less in other countries, especially in England and America.

(4) The adulterants are various; (a) rectified essence of turpentine and other similar oils; (b) essential oils of the same kind that have an inferior value; (c) the essential oils which cost less, produced by distillation of the dregs.

(5) My essential oils are not known under a special brand. The brand is given by the importing firm, having the cases branded with its own initials.

"My firm has for trade mark a comet and the initials 'I. S.'" I export only one quality, pure essential oils and nothing else, and refuse all orders for inferior qualities.

Mr. Moore, of the firm of Ogston & Moore, chemists, of London, who was sent to Messina by English importers for the special purpose of ascertaining all facts relative to the adulteration of oils, said: "In reference to your inquiry as to whether there is any method for the detection of turpentine in essences, until now there has been no reliable test, the difficulty in regard to essence of lemon being that it is of nearly the same specific gravity as turpentine, and also from the fact of their being nearly related to each other inasmuch as they both belong to the family turpeneae."

"Since our opening of a branch here, some eight months since, we have given the matter a great deal of attention. Through our being on the ground we have been able to obtain much information regarding the materials used for adulteration; also pure essences made under personal supervision for use in our investigations. We are now able to give analyses of essence of lemon and orange. In the future we shall carry on our experiments with bergamot and others. Your moving in this matter has caused a stir in the market already, and one firm has commenced to sell essences on analysis, and we take their samples ourselves from the coppers and afterward seal them with our own seal. We may state that the principal merchants are anxious to sell on analysis in order that the pure material may realize its proper price. They have given us much valuable information, and under these favorable circumstances we have been able to devise tests that in future we can rely upon as giving accurate results."

The above correspondence (which embraces every manufacturer and exporter of prominent brands) varied as it is in both facts and figures, points to one conclusion at least, and that is, in the words of the Confectioner, "If you want to get in the fullest degree the perfect flavor and odor of essential oils, do not grumble at the price."

STRAY THOUGHTS ON ADVERTISING.

Putting flippancy aside, however, and descending to the practical, everyday bearing and value of advertising to men of the type of the average chemist and druggist, the first fact that must present itself—and a very hard fact it is—is the very evident division which has recently taken place in what used to be known as the business—sometimes even profession—of pharmacy. In the days that elderly pharmacists love to look back upon all the advertising was done inside the bottle and packages—good physics was its own recommendation. A little later, remunerative outlets for large amounts of capital began to get scarce and large sums were invested in putting on the market and advertising proprietary soaps, medicines and toilet requisites of all kinds. Chemists stocked these articles, and, because they were fairly profitable and easily sold, even went so far as to "push" them. Certain of the more knowing members of the craft, and many who were not craftsmen at all, soon found out that by selling the most widely advertised of these proprietary articles at cost price they had one of the cheapest and most effective forms of advertisement. They attracted the public to their establishments, and once there, it followed, as a matter of course, that they sold to them some of their own articles, the profit on which recouped them for loss—in the form of interest on unremunerative stock—sustained on articles sold at cost. In this way the small advertiser gets his advertising done for him by the big advertiser. This kind of advertising was so simple and inexpensive that there was a "run" upon it. The result is that now only men with both capital and resource can hope to achieve any degree of success by this method. When the method was in its infancy each man had his special "cut." Now there are so many at it that everything is "cut," and very large unremunerative stocks have become a necessity. Good dividends are all earned by working a profitable "own specialty" trade in conjunction with an unprofitable patent-medicine trade; but much more capital, energy and resource are required now than when the method was younger.

A more modern innovation in the direction of the large advertiser doing the small advertiser's advertising for him is one in which the large man does the small man's printing—that is, prints for him free, bills recommending his specialties—the large man's specialty occupying, however, the best position on the bills. From the capitalist's point of view this is undoubtedly good business, because for a very slight outlay he secures the retailer's goodwill and thus induces him both to stock and push his articles. To the retailer, however, who has studied the recent history of the retail drug trade and who has, occasionally, a balance of 5s. to spend on his own handbills, such a policy must appear nothing short of suicidal. It may be said here that there are many special articles which it does not pay a retailer to get up labels for and spend time in wrapping, and that it is only the well-got up article which sells. Quite true; but there are now many enter-

prising wholesale houses who make a trade of getting up articles in this way, and who are altruistic enough—a matter of policy again—to let the retailer sell these as his own; they will even put his name on for him, if he gives a large enough order, and at a small cost will print his bills for him without giving the premier position to their own nostrums.

It is the boast of a well-known firm of vinegar makers that they only advertise inside their casks. The truth underlying this boast should not be lost sight of, especially by pharmacists, but at the same time a little judicious advertising outside the cask never makes the contents any worse. Every retailer with any capital at all can do a little advertising with great benefit to his business. When it becomes a question of trying to put before the general public a specialty which has sold well locally, he has no chance against the large advertiser, with his staff of experts, both in writing and placing advertisements, and his efforts in this direction are almost sure to end in failure. If, however, he studies the wants of his locality and lays himself out to supply them, with a due amount of tact and energy he will find that at a small risk of capital he can soon build up a profitable trade in his own manufactures. Courtesy at the counter, constant attention to business, a smart-looking shop, a nicely dressed window, attractive labels (never allowed to get soiled), are inexpensive methods of advertising, and when backed up by well-written handbills, cheaply distributed by wrapping round every pack of goods sold, seldom fail to bear fruit. I have sometimes thought that chemists might, with great advantage from an advertising point of view, sell more articles in common demand than they generally do—articles now mostly relegated to grocers, but which, from the fact that everybody uses them, even in bad times, are invaluable vehicles for advertisements. Even from a West End point of view there would be nothing unpharmaceutical in a chemist selling his own brand of tea, pepper, blacklead, mustard, starch, laundry soap and rice, especially if he became noted for it; the public is a better judge of these than of drugs, and would naturally conclude that the man who sold good tea would be sure to sell good drugs; and whatever may be said of the cumulative nature of newspaper advertising, there can be no doubt of the cumulative nature of this kind.

The relation between advertised medicines and quackery is so close that I may be pardoned for referring to one bearing of the subject. Certain leaders of the medical profession have recently been very busy decrying quackery and reading sermons to editors of lay journals on the sin of admitting quack advertisements. While admitting that there is a great deal of criminal quackery perpetrated through the medium of public journals, I think that it must be patent to every thoughtful pharmacist and medical man that this is a subject on which it is not advisable to dogmatize. The pages of the medical journals themselves—even the most exclusive of them—are not always what Caesar's wife ought to be, and this applies to their literary matter as well as to

their advertisements. People who live in glass houses should not throw stones.—From paper read before the Sheffield Pharm. Soc. by G. A. Grilerson. (The Ch. and Dr.), April 14, 1894.

COMPARATIVE STATEMENT OF DRUG IMPORTS AND EXPORTS.

	Month ending April 30.	
	1894.	1893.
Articles free of duty:		
Allizarin and madder.....	\$ 46,347	\$ 54,489
Argol or crude tartar.....	160,248	185,615
Cinchona barks.....	16,833	5,244
Cochineal.....	5,559	8,851
Logwood.....	164,898	77,464
Other dyewoods.....	7,265	16,606
Gums—Arabic.....	9,187	2,157
Camphor, crude.....	79,373	17,425
Gambier.....	102,194	200,216
Shellac.....	97,817	56,123
All other.....	168,550	539,139
Indigo.....	226,441	201,653
Licorice root.....	138,010	99,781
Bleaching powder.....	165,362	207,233
Mineral waters.....	30,622	63,834
Opium, crude.....	276,852	160,516
Potash—Chlorate.....	66,049	51,485
Muriate.....	204,385	107,703
Nitrate, crude.....	17,587	76,836
All other.....	61,177	66,355
Quina and other salts of cinchona bark.....	53,291	63,385
Soda, nitrate.....	198,055	448,414
Sulphur, crude.....	133,115	161,762
Vanilla beans.....	33,836	52,015
Miscellaneous.....	404,587	556,063
Total.....	\$2,864,372	\$3,623,792
Cocoa, crude.....		
Cocoa, crude.....	\$ 157,263	\$ 230,758
Cork, unmanufactured.....	103,884	200,092
Oils—Fixed.....	127,032	174,120
Essential.....	85,859	104,122
Total.....	\$ 473,048	\$ 609,069
Articles dutiable:		
Coal tar, colors, etc.....	\$ 147,842	\$ 221,625
Glycerin.....	53,901	66,748
Dyewood extracts.....	20,721	27,102
Opium for smoking.....	82,743	78,964
Soda—Caustic.....	82,743	148,402
Salt soda.....	10,229	16,631
Soda ash.....	177,951	441,214
Other salts of.....	11,313	26,737
Sumac, ground.....	17,409	21,851
Miscellaneous.....	401,305	447,720
Total.....	\$ 923,338	\$1,490,414
Oils—Olive.....		
Oils—Olive.....	\$ 151,198	\$ 171,616
Essential.....	16,392	22,639
Perfumes and toilet preparations.....	41,041	36,299
Total.....	\$ 207,631	\$ 230,554
Exports:		
Acids.....	\$ 7,051	\$ 7,726
Ashes, pot and pearl.....	789	3,060
Dyes and dyestuffs.....	62,217	60,870
Ginseng.....	33,339	18,818
Medicines, patent and proprietary.....	146,162	132,978
Roots, herbs, barks.....	24,064	12,545
Miscellaneous.....	414,333	298,751
Total.....	\$ 688,615	\$ 604,743
Oils—Peppermint.....	\$ 10,815	\$ 19,943
Other essential.....	7,631	10,192
Perfumes and cosmetics.....	23,209	29,563
Total.....	\$ 41,707	\$ 59,703

Dr. Salmon, Chief of the Government Bureau of Animal Industry, is credited with the remarkable statement that, if all the cows affected with tuberculosis were killed, milk would cost as much as champagne.

THE SOURCES AND APPLICATIONS OF BORAX.

By E. L. Fleming.

Borax is a white, crystalline substance, peculiar to the mineral kingdom; it is a very mild alkali, of a pleasant, sweetish taste, and it is not injurious to the human system; it is freely soluble in water; its solution acts as a solvent for resins, albumens, fatty acids and certain organic bodies that are not soluble in water alone; but it does not appear to attack fibers, membranes, tissues or skin. In the crystalline state or in solution it is very easily decomposed by such acids as tartaric acid or acetic acid; but in its calcined or anhydrous state, when fused, the boracic acid it contains acts as a more powerful acid than even sulphuric acid. Borax in the crystalline state contains 47.1-4 per cent. of its weight of water, to which it tenaciously adheres at the ordinary temperature of the atmosphere, time seeming to have very little effect upon its character. At the boiling point of water it slowly parts with nearly the whole of this water, and if the process be conducted quickly, at a still higher temperature the borax swells to several times its size, becoming a body of a light and porous nature, which may be crushed to a compact powder. At a higher temperature than 450 deg. Fahr. it melts to a clear glass, which remains transparent on cooling. Though the applications of borax are not generally known, as a fact this interesting and valuable salt will be seen to be utilized in different ways by several industries.

For goldsmiths a special grade of borax is prepared, called jeweler's borax, in pieces as solid and free from cracks as possible, so that when rubbed on a slate with water it is not liable to fall to pieces, but will gradually wear away until too small to handle conveniently, when the small pieces are put on one side, to be used as a flux in melting or collecting.

An enameled coating for cast-iron and steel as well as copper is made by fusing on the metal a mixture of quartz, feldspar, clay and borax, and then covering it with a glaze containing borax. It is thus extensively used in the manufacture of enameled iron mantelpieces, made to represent the rarest marbles, and in the great variety of enameled signs and hollow ware. Borax is also used in conjunction with infusorial earth for lining fire-proof safes, for being a salt that contains nearly 50 per cent. of its weight of water of crystallization, with which it parts at a high temperature in the event of fire, the steam arising from the heated borax permeates the books and papers in the safe and prevents their being burnt. For this purpose it is superior to alum, which is an acid salt, and has a tendency to corrode the iron. At a red heat the boracic acid in borax readily dissolves and unites with metallic oxides, forming a fusible glass, which property renders borax of great use in conjunction with other fluxes, for certain mineral and metallurgical processes.

In brazing copper it is used for cleansing the parts to be joined, on account of the property it possesses of dissolving the oxides that form a film upon the metal.

It is very extensively used in the manufacture of copper pipes and for other purposes.

In welding iron and steel together, it answers the same purpose. Machinists and others use the crystal for chilling the iron to the right temperature, for the purpose of case hardening or tempering different portions of machinery or implements to the desired degree.

Borax has recently been applied with considerable success to the manufacture of optical glass at Jena. This glass has very high refractive properties, and has been very successfully applied to the manufacture of lenses for microscopes and for photography.

Borax is now used in glazing china and earthenware so extensively all over the world that the consumption in these industries at the present time exceeds any of the others. The principle adopted is to form a fusible glass of borax and other materials, and fuse it on to the baked earthenware. Many formulae have been published of the composition of this frit, but almost every large firm have their own formula.

In the manufacture of Parisian cement the borax is added for the purpose of enabling cement, when set and molded, to take a polish.

In the chemical industries it is used in the manufacture of soap, colors, dyes, saltery and cosmetics; also in photography and timber preserving.

There are many kinds of borax soap. From all accounts, its use in this industry arose from the fact that the linen of Holland and Belgium became celebrated on account of its superior whiteness, in the cleansing of which borax was used as a soap powder; hence we find that dry soap, soft soap and toilet soaps are now made with it.

In the manufacture of colors borax is used, and in the preparation of borate of chromium, a pale green powder, and borate of copper, a darker green. These are used as substitutes for arsenical green in painting and dyeing.

In drysaltery it is used in the shape of borate of lead and borate of manganese. Both these products are used in the manufacture of varnish (as driers). The borate of lead is used for the palest varnishes, and the borate of manganese in other varnishes.

As a cosmetic, it enters in the composition of many preparations for the hair, the face and the hands.

Photographers use it in the toning bath, to govern the action of chloride of gold, which is dissolved in conjunction with it.

In the preservation of timber it is used for dissolving the albuminous resinous matter, or the sap, which readily decays, leaving only the tough fiber.

Borax dissolves casein, forming a substance which can be used as mucilage.

In silk it serves for dissolving the glutinous matter adhering to raw silk. In calico printing it is used for fixing certain colors as a mordant.

Laces, muslin, tulle and other light fabrics steeped in a solution of borax are rendered fireproof.

Hat manufacturers use borax for dissolving shellac to form a stiffening for

felt hats made of wool. A weak solution of borax is used after the felt body is proofed, to wash from the surface any excess of stiffening not required upon the face of the felt.

Candle wicks are prepared with a solution of borax. Its use is to cause the wick to curve in burning, and at the same time to vitrify the ash. It also prevents the wicks from burning too rapidly, and obviates the necessity for snuffers.

In the leather industries it is used in curing and preparing skins, by leather dressers and leather dyers.

It is used as a mordant in dyeing leather with aniline colors, and also in polishing a little borax in the blacking or coloring is added to enable the iron used in polishing to pass freely over the leather. It prevents the iron sticking and increases the glaze.

Pork packers use powdered borax for sprinkling over hams and bacon. Thousands of tons of meat are thus annually preserved in America.

Fish curers use a mixture of boracic acid, alum and salt for keeping herrings fresh. The principal seat of this industry, so far, has been at Hangoesund, near Stavanger, in Norway.

Having thus practically demonstrated its usefulness, let us turn our attention to the sources from whence it comes. England has no borax fields or mines, and at present the material, either in the manufactured state or that from which it can be manufactured, comes from Thibet, Italy, Chili, California and Asia Minor. Thibet is the most ancient source, and under the name of "tinca," borax is brought from the neighborhood of Yam-dokho to Calcutta, from which port the source or origin is distant between 400 and 500 miles, almost direct north. At the present time there is railroad communication as far as Darjeeling, or a distance of 300 miles.

There is also a borax refinery at Jagadhri, thirty-seven miles southeast of Umballa, in Northern India, all the borax which is exported from India being brought from the trans-Himalayan region.

The manufacture of borax, as far as England is concerned, divides itself into two classes—the manufacture of borax from boracic acid and that from sesquiborate of lime and double borate of lime and soda.

The mere refining or recrystallizing of crude borax requires no skill at all. The manufacture of borax from boracic acid imported from Italy involves several processes. The sulphates of ammonia and magnesia have first to be washed out of the crystallized acid, and this is effected by reason of their superior solubility. The boracic acid is then boiled in large iron pans, with the requisite amount of carbonate of soda, the impurities allowed to subside, and the clear liquor run to large iron vats to crystallize. This first borax is not pure enough for commerce, and requires a second crystallization.

The impure borax liquors are boiled down, and upon reaching a strength of 60 degrees Twad., or 1.300 specific gravity, are allowed to recrystallize and throw down a further crop of borax. Before the mixture reaches a temperature of 80 degrees Fahr. it is drawn off into other

vats to allow the sulphate of soda to crystallize out, and finally the liquor is raised to the boiling point, and concentrated, in order to get rid of the common salt.

Borax manufactured from boracic acid is liable to be tinged with various colors, such as black, green or yellow, on account of impurities contained in the acid or the soda ash, and which are due to the presence of sulphides or oxides of iron. In order to overcome this difficulty the borax is bleached when in a state of solution.

The manufacture of borax from boracite, colmanite, or ulexite presents a new feature that does not appear in the manufacture from boracic acid, and that is, that when any of these minerals are reduced to a state of the finest powder, and boiled with carbonate of soda, what is known as borate of soda, as well as biborate of soda, is formed.

The biborate of soda or borax crystallizes out in the ordinary way, but the borate of soda remains as a thick, syrupy liquor, which has to be decomposed either with carbonic acid, boracic acid, or bicarbonate of soda. If this is not done, loss is apt to occur, and the full strength of the mineral is not obtained.

With such abundant supplies of borate of lime throughout the world, it becomes a question of transporting the boracic acid it contains in as concentrated a form as possible, especially in those regions where the quality is but poor, and, therefore, many plans have been devised. One of the simplest is what is known as the sulphurous acid process, and this is to be preferred to others on account of the small quantity of sulphur required to extract the boracic acid.

The process consists in burning sulphur, and injecting the sulphurous vapors into the decomposing vessel, where the borate of lime is kept in a state of agitation and suspension in water.

Only one ton of sulphur is required to produce five tons of acid, and the saving effected in cost of transportation, where it takes two or even three tons of borate of lime to produce a ton of boracic acid, requires no recommendation.

Various estimates have been made of the consumption of borax throughout the world, and one of the methods of ascertaining this is by referring to the productions of different countries and converting the different materials in their equivalent of borax. We thus find the production to be as follows:

	Tons.
Asia Minor	8,000
Thibet	2,000
Italy	3,000
United States	6,000
Chill and Bolivia.....	3,000
 Total	 22,000

As the American and Asia Minor supply has been developed within the last twenty years, it will be seen that the uses of borax, to the extent of 14,000 tons per annum, have increased during that period nearly 300 per cent., and it may be taken for certain that its uses will still further extend.—Chemical Trade Journal. (Reprinted from Br. & Col. Dr.)

INFECTON AND CONTAGION.

The fact that much alarm and disturbance are continually being caused by the application by the laity of the rather inexact terms "contagious" and "infectious," as used by the medical profession, led the New York Academy of Medicine, at a recent meeting, to consider the question of adopting a more exact nomenclature for the different classes of infectious diseases. It was acknowledged that the erroneous ideas which the public associate with these terms were largely due to their careless use by the profession itself, and it was hoped that a more exact knowledge of the terms on the part of the public would do much to allay those vague fears which are the generators of panics. As a possible means of assisting in this movement the following classification of infectious diseases, as submitted by Dr. William H. Thomson, is presented: "(I.) All infectious diseases are due to the presence of their specific living micro-organisms in the body. (II.) Infectious diseases are divisible into three classes, viz: (1) Communicable, (2) non-communicable and (3) the septic. (III.) The communicable diseases are those whose origin is from an animal body. Examples are smallpox, Asiatic cholera and tuberculosis. (IV.) The non-communicable diseases, those whose origin is not from an animal body, but from a place or thing. Examples are ague, yellow fever and miasmatic diseases in general. (V.) The septic infectious diseases are those in which the infection enters through a wound or inflamed skin or mucous membrane. Examples are erysipelas, hydrophobia, tetanus, etc.

"Communicable diseases are subdivided into two classes, viz: Contagious and non-contagious. The contagious are those in which simple proximity to the infected is sufficient to communicate the infection to those susceptible to it. Examples are typhus fever, scarlet fever, measles, mumps, whooping cough, etc. Isolation of the sick is therefore needful to prevent infection. The non-contagious are those in which the communication is not by simple proximity to the sick but due to intermediate means of communication. Isolation is, therefore, neither needful nor effective, in comparison with measures directed against intermediate means of infection. Examples are typhoid fever, Asiatic cholera and tuberculosis." In commenting upon this classification Dr. Thomson says that "this classification if correct is of advantage, because it is intelligible to ordinary readers. All infectious diseases can be prevented by measures of disinfection applicable to each, and when all infections are understood to be due to living micro-organisms, all vague ideas about their relation to poisonous chemical, physical or atmospheric instrumentalities, will give place not only to better ideas of what infection is, but also to what disinfection implies. The term communicable seems particularly advisable to designate every disease whose origin is from some animal body previously infected, because this term will fasten in the mind the fact that no case of such disease has any other cause than such communication. The term 'contagion' is particularly repugnant to most

people, and to have a chronic disease like tuberculosis looked upon as contagious would be very undesirable. It was a serious discredit to our profession, as well as to our civilization, when the steamer *Normanna* was quarantined in our harbor recently, as if cholera was a contagious disease, and its passengers treated as we all remember."

A clearer understanding of these distinctions, while it may not prevent the spread of what the public sometimes designates as "taking" diseases, it will do much to allay the alarm which follows the varying interpretations which the laity places upon terms which the medical profession uses quite freely without due care that their meaning is correctly understood by the public.

COLOR HARMONY.

The following general rules on color effects in window dressing are taken from a trade catalogue:

- Red and violet do not accord well.
- Orange and yellow accord incomparably better than red and orange.
- Orange and green do not accord well.
- Orange and violet accord passably.
- Yellow and green form an agreeable combination.
- Greenish yellow and violet blend nicely.
- The arrangement of yellow and blue is more agreeable than that of yellow and green, but it is less lively.
- Green and blue produce an indifferent effect, but better when the colors are deep.
- Green and violet, especially when light, form a combination preferable to green and blue.
- Orange yellow, when placed by the side of indigo increases its intensity, and vice versa.
- Red and green intensify each other.
- Yellow and indigo combine perfectly.
- Red and orange do not accord well.
- Red and yellow accord pretty well, especially if the red is purple red, rather than scarlet, and the yellow rather greenish than orange.
- Red and blue accord passably, especially if the red incline rather to scarlet than crimson.
- Blue and violet accord badly.
- When two colors accord badly together, it is always advantageous to separate them by white.
- Black never produces a bad effect when it is associated with two luminous colors.
- Black and white sensibly modify bright colors.
- White gray never exactly produces a bad effect in its association with two luminous colors, yet in most cases its assortments are dull.
- Blue, when placed by the side of orange, increases the latter's intensity, and vice versa.

The appeal taken by Richardson & Co., from the decision of the English courts in the celebrated Lanoline case, the particulars of which were given in *The Era* of January 15, has been decided in favor of the plaintiffs, Benno, Jaffe & Darmstaedter Lanolin Fabrik. The chief justices held that the patent covered a new product, differing greatly from the ancient product called "oesypus."

TRADE NOTES.

Cushman's Menthol Inhaler is one of the few articles which sell themselves. A few seconds' trial by customers who are afflicted with headache, neuralgia and ailments of the air passages usually settles the question of buying in the dealer's favor. Mr. Cushman is a liberal advertiser through the retail drug trade, and every druggist should investigate his latest advertising offer.

A careful inspection of the leading magazines and periodicals of the day will disclose the fact that the public is having its attention called through the medium of attractive advertising to Mellin's Food. This is one of the surest indications that the article in question is enjoying a good sale, and that the druggist will share the benefit. Keep in touch with the Doliber-Goodale Co., Boston, and watch their advertising.

The regular soda fountain patron (and he is the person you are striving to please) is always on the lookout for something new. In the case of Red Maltese Orange Juice, it will certainly please. It is a new one, delicious and refreshing. It is made by Smith & Painter, Wilmington, Del.; is put up in full quart flint bottles, and all wholesalers sell it at \$5.50 per dozen. One part of juice to three of syrup is the proportion for its use.

Druggists, manufacturers and colleges all have occasion to use stoneware in the shape of jugs, acid jars, ammonia jars, acid pitchers, etc., and when the question arises of where to buy such articles the New York Pottery Co., of 503 West 21st st., New York, should not be forgotten. Their catalogue, covering a very complete line of such goods, will be sent upon application, and will prove of value to intending purchasers.

This is the season for bugs and "Bug-line." The druggist should come to the aid of the housewife who is preparing for the annual struggle with roaches, bed-bugs and other insects, and he can do this quite effectually by keeping Bugline in stock. It is non-poisonous to human kind, retails for 25 cents, costs \$1.75 per dozen and gives satisfaction. See list of jobbers who handle it in advertisement of Iron City Chemical Co. in this issue.

Although purchases of naphthaline for the trade of the coming season have received due attention on the part of large dealers, a replenishment of stocks is a necessity which is constantly liable to arise. As Schoellkopf, Hartford & MacLagan, 3 Cedar street, New York, are headquarters for all grades of this product, their special prices on the same should be in the possession of all prospective buyers.

The Albany Chemical Company of Albany, N. Y., call the attention of manufacturers, wholesalers and retailers to an important line of specialties, which they advertise in this issue. The extent of this firm's manufactures and the uniform high quality of their products renders an acquaintance with their goods quite necessary to those who desire to keep fully posted upon all the features of the chemical and pharmaceutical market.

As in everything else, the efficiency of empty capsules depends upon the care exercised in making them. The United States Capsule Company, Detroit, Mich., use all precautions possible to render their product of uniform size and perfect cut, and they assure the drug trade that specifying "U. S." on all orders for such goods will result in complete satisfaction in dispensing.

The Syracuse Drug Co., Syracuse, N. Y., has sprung a surprise upon the flies for the coming season. Assuming that a fly never misses the opportunity of alighting on every uncovered dish in sight, they have fixed a utensil of this sort for the discomfiture of our Summer pests. An advertisement on page 7 shows what this new flycatcher looks like, and the prices quoted show that "Fly Plates" are profitable goods to handle.

The compressed block is now recognized by all retailers as the most satisfactory method of selling camphor. The Trefold brand, manufactured in Japan by the Japan Camphor Co., received a medal at the World's Fair, and is giving excellent satisfaction to all who are handling it. Inquiries directed to David Nash, 76 Broad street, New York, will bring full particulars regarding this brand, with prices on the same.

Are you acquainted with the utility boxes manufactured by Fred N. Burt, Buffalo, N. Y.? They beat wrapping paper and are nearly as cheap. They are just the thing for goods usually retailed in bulk, such as charcoal, borax, Rochelle salts, cream tartar, potash, alum, etc. Plain but neat labels are furnished for these boxes at very low prices. Sizes from one ounce to two pounds are always kept in stock. Send for circular and prices.

One assurance of the success of a medicinal preparation is the attempt made soon or later to imitate it. No one cares about an imitation of a poor article. The advertisement of Charles Allen Reed in this issue shows that Calisaya La Rilla is a popular preparation. It is handled by all wholesalers, and the demand for it has become so great that a western depot has been established with E. H. Buehler, 108 Randolph street, Chicago.

The Supreme Court of Rhode Island holds that every combination in trade is not illegal, even though such combination may have the effect to diminish the number of competitors in business. Monopolies are liable to be oppressive, and hence deemed to be hostile to the public good. But combinations for mutual advantage, which do not amount to a monopoly, but leave the field of competition open to others, are neither within the reason nor the operation of the rule.

The National Folding Box and Paper Company, 16-13 Reade street, New York, claim not only to be the largest manufacturers of folding paper boxes in America, but claim that this fact enables them to turn out the best of goods. They do not desire to make such claims without support, but offer to send samples of their work and prices on the same to demonstrate the truth of their statements. See their advertisement on front cover of this issue.

Extend your business by extending the facilities for doing it. One of the methods for doing this is to keep on hand a supply of the liquid mailing cases manufactured by the United States Mailing Case Co., of Boston. With these, orders from a distance can be filled quickly and satisfactorily. Manufacturers who desire to extend the scope of their operations by sampling the trade will find these cases just the thing. Send for price list and circulars.

Rhode's Kumyss finds appropriate medicinal application at all seasons of the year, but the diseases incident to the summer season always create an increased demand for it at such times. It is also in considerable request by many who find it an agreeable beverage during warm weather. R. E. Rhode, 504 North Clark street, Chicago, will be pleased to furnish the trade full information regarding the therapeutical properties of his preparation. See prices in advertisement in this issue.

A suppository machine, to be satisfactory, must be simple in construction, and compact, easily and quickly operated, and must turn out smooth and solid suppositories. This is the kind of a machine to which Whitall, Tatum & Co. call the attention of the trade in their advertisement in this issue, where will be found a detailed description of its workings. The price is but \$9, each machine being furnished with moulds for turning out three sizes of suppositories and for making bougies.

The Dawes Manufacturing Co., Pittsburg, are making a special offer on shop bottles which should not escape the attention of those who are aware that their shelves are not looking as attractive as they ought. To the pharmacist just starting in business the opportunity is offered for obtaining a complete outfit at a greatly reduced price. Samples of any of their six styles of bottles will be sent, labeled on receipt of 25 cents, and illustrated sheets of lettered prescription vials will be sent upon application.

If you make suppositories, bougies, camphor ice, cosmetics, tooth and toilet powders, pills, etc., A. H. Wirtz, 913-917 Cherry street, Philadelphia, can furnish you the necessary apparatus for their manufacture, and can also furnish you with a very complete line of collapsible tubes, bottle stoppers, etc., to put the goods in attractive shape for sale. Every druggist should have Mr. Wirtz' catalogue of metal specialties for the drug trade. It will be found a valuable aid as a guide in ordering such goods from the jobber.

AN OPINION ON "SILENT SALESMAN."

Messrs. John Phillips & Co., Detroit, Mich.

Dear Sirs: Your shipment of thirteen "Silent Salesman" show cases arrived a trifle late, though we are aware through no fault of yours. We are well pleased with them in every particular, and will cordially recommend your cases whenever and wherever we find the opportunity to do so. Very truly yours,

HACKETT, CARHART & CO.,
Broadway, cor. Canal st., New York.

Duroy & Haines of Sandusky, Ohio, who are well and favorably known to the drug trade through their famous Duroy Wines, have placed a new product upon the market, which the trade will find admirably suited to the demands of a large class of customers. It is called "Vini-Claro," and consists of Duroy claret, to which is added pepsin in the proportion of one grain to the ounce. This forms a delicious tonic and stimulant, valuable in all forms of dyspepsia. Send for free sample and mention The Era.

If you want to know "Who we are; what we are; where we are," the Cudahy Pharmaceutical Company of South Omaha, Neb., will send you a little book bearing the above title. It describes all the various products of the company, including their latest, the "Hot Weather" sellers, Cudahy's Wine of Beef Peptone and Lime Juice and Pepsin. The latter has been put up especially for soda fountain use, the strength of the lime juice being doubled. Samples of both these preparations will be furnished upon application.

As every physician has a few combinations or prescriptions which are acknowledged favorites, so nearly every manufacturing pharmacist has some particular preparations upon which he has devoted extra attention and experiment until they become specialties and closely identified with the names of their originators. The Searle & Hereth Company of Chicago have a number of this class which are well worth attention. Among them are Trinita, Thymenol, Calocelat, Chloro-Kaline, etc. Full literature bearing upon the application of these preparations will be furnished upon request.

If you buy your ice cream for dispensing at the soda fountain you ought to be interested in the Bradley Ice Cream Cabinets, which are convenient for dispensing and keep the cream in good condition from 12 to 24 hours. If you make your own ice cream, you might as well make enough to supply all the families in your neighborhood, in which case the Delivery and Family Cabinets made by the same firm ought to interest you. A request sent to the Bradley Manufacturing Co., 218 George street, New Haven, Conn., will bring you full descriptive circulars and price lists of these cabinets.

COMBS and BRUSH



CASES.

Nearly everything that can be of service to the druggist and can be fashioned of wire is manufactured by the Philadelphia Ornamental Wire Company, 18 North Sixth street, Philadelphia, and their new catalogue shows an interesting array of such articles. When you write for this it might be well to make inquiries regarding the Handy Pocket Parcel Carriers. Their simplicity and usefulness will recommend them to the public, and they are cheap at 10 cents.

Novelties always command the attention of the public, but in choosing such the dealer should try to obtain those that are seasonable. The new advertisement of Billings, Clapp & Co., Boston, in this issue, calls attention to just this kind of goods. People now want lemonade and root beer, and their pleasurable surprise at finding that such things are now put up in tablet form will undoubtedly lead to large sales of the "Ideal" tablets of lemonade and root beer which this firm is now putting up. Ten cents will bring you sample tubes of both kinds. In writing for them mention The Era.

One great requisite for a proprietary preparation is an attractive or "taking" name, which should, above all things, be one which the public can easily pronounce and as easily remember. This must be one of the causes which have made "Flag Salt" popular. The prices on this article also commend it to the drug trade. Two dollars procure one dozen 25-cent boxes, one dozen ten-cent packages and 75 samples, by express, prepaid. The samples sell the goods, which net \$4.20. Write to the Flag Salt Remedy Co., Savannah, N. Y., for sample box, which is sent free of charge.

Although your decision may be "hanging fire" on the question of a new soda fountain for this Summer's trade, it is not too late to get in readiness for the best part of the season. The John Matthews Apparatus Company have made special preparations to take care of orders which may come in late, and their facilities, both in manufacturing and distributing their goods will enable them to put their fountains in shape upon short notice. If still in doubt as to what apparatus to buy, examine the "Matthews" or send for the firm's 1894 catalogue, which is sent free, express prepaid, to any established business house.

The profit which the retail druggist is enabled to make by putting up his own toilet preparations is one which depends to a great extent upon the materials and containers which he uses. A great deal depends upon the attractiveness of the latter for the public, and a great deal also depends upon the prices which the druggist has to pay for such articles. The Hero Fruit Jar Co., Gaul and Adams streets, Philadelphia, manufacture a very complete line of such goods, including a line of patented bottle stoppers, which they recommend for both attractiveness and cheapness. They offer samples and prices to sustain their position.

Menthol Inhalers and Menthol Cones both have their distinctive uses, and people have been in the habit heretofore of spending money for these articles separately. Now that a combination of the two has been effected by Sharp & Dohme, the continued popularity of menthol as a remedy for slight ailments seems to be assured. The new combination is put up attractively in silver-plated cases, illustrations of which are shown on page 16. The price of the article to the retailer is \$2 per dozen net, and lots of people will want them at prices which will afford the dealer a handsome profit.

Hawley & Hoops, 267-271 Mulberry street, New York, want the attention of those druggists who are making or are disposed to make their own chocolate syrup for soda fountain use. Their extract of cocoa, which is sold under the trade-mark "A No. 1," is especially adapted for this purpose, and as it is made from prime cocoa beans it is guaranteed to give satisfaction. It is put up in one and five-pound cans, and a trial of the first size usually results in a purchase of the second. All wholesale druggists handle it.

Attention is directed to the advertisement in this issue of the Valley City Novelty Co. of Grand Rapids, Mich. Their patent pocket fountain pen and pencilholder is one of those handy articles which people buy when their attention is called to them, and the profit on which is such as to give them a good position on the retailers' list of paying specialties. They cost \$1 per dozen, retail at 15 cents, and are handled by jobbers.

The many designs in which prescription bottles are offered to the trade show that considerations of style and beauty can enter into the manufacture of so conventional an article as a medicine bottle. The New Monogram Square offered by the Saltsburg Bottle Works Co., Saltsburg, Pa., indicates that these points were duly considered in designing this attractive container, and in addition great strength and freedom from danger of breakage have been secured by the rounded corners and bottoms. As the prices on these bottles are no higher than for the ordinary kind, there is no risk in seeking satisfactory results through a trial order.

The only reason which would justify a manufacturer in offering to the trade which is apparently well supplied with syringes a new article, would be the fact that the new article possessed some distinct points of superiority. This is eminently the case with the Pri-mo Ladies' Syringe. It is a high-class article constructed upon scientific principles. It is one of the kind which the dealer can recommend, and that the physician will specify after his attention is called to it. It is not a "cheap" instrument in the usual sense of the word, but one which commands a fair price and gives value received for the money expended for it. See advertisement of E. J. Hussey & Co. in this issue.

A PROFITABLE LINE FOR DRUGGISTS.

It is not generally known among the trade that a large business is done by some druggists in selling old postage stamps to collectors. We know of many firms doing a flourishing business in this line, selling large quantities of stamps to collectors each month.

The Standard Stamp Company, 4 Nicholson place, St. Louis, Mo., sends out consignments of stamps to reliable druggists in every city of the United States, and it would pay any who have good stands, especially near a school or college, to handle these goods. There is no expense in giving this a trial, as the firm sends out these consignments on liberal commissions.—Adv.

If you have anything in the way of drug specialties which you wish to introduce to the trade of New York and vicinity, Cushman Bros., 78 Hudson street, New York, can advise you and furnish the best means for establishing a trade. Write them for particulars if you are interested.

The "unspeakable Turk," with all his fallings, still calls for our praise for furnishing us with an idea which we have developed into the luxurious Turkish towel of to-day. Not content with a simple towel, even if it was an excellent one, the Star and Crescent Mills Company of Philadelphia has found fresh uses for this popular fabric, and now we find robes, rugs, slippers, flesh mlts and other accessories of the bath made of the same goods. Many druggists are finding it quite profitable to supply their customers with these articles, and those who are not doing it should investigate the subject. The manufacturers furnish a text book on Turkish Toweling, which can be had for the asking. Better get it.

The selling qualities of different articles are quite variable, but there is no question about those of articles which are made for the pleasure, health and comfort of children. The welfare of the latter is paramount in every family circle, and the druggist who interests the mothers in Arnold's Steam Sterilizers is on the road to success. As the knowledge of the dangers which may lurk in impure milk increases, so does the sale of an article of this sort. Write to Wilmot Castle & Co., Rochester, N. Y., for full particulars regarding the application and operation of this household necessity and figures which will show that the handling of the Arnold is profitable from a business standpoint.

Reliability is one of the great requisites for the success of any luxury depending upon the fickle favor of the public. Metcalf's Sachet Powders have been so long before the public that there must be some truth in the claims for reliability which the manufacturers make. Besides the regular line of odors the firm of Theodore Metcalf Company, Boston, have three trade-marked sachets, which are immensely popular. They are "Forget-Me-Not," "Drop of Dew" and "Boston Orris," and their "shop dress" is just as attractive as their names. See list of jobbers in advertisement in this issue, who handle these goods, and if not already in stock, try a few in your next order to your jobber.

Gilpin, Langdon & Co., Baltimore, have always made very decided statements regarding the superiority of their powders for percolation, but they have always been ready to demonstrate the truth of their assertions at their own expense. Their latest offer is an illustration of this policy. They offer to send sufficient denarcotized opium to make one pint of deodorized tincture opium, assayed, U. S. P., 1890, for 60 cents, or will send sufficient powdered extract nux vomica, assayed, to make one pint of the tincture free of charge. Druggists who have not availed themselves of their offer of metric weights and graduates should write them for particulars. At the same time ask them to inclose you a copy of "A Kueer Kovention." It is quite humorous.

Scherling & Glatz of 55 Maiden lane, New York, have lately issued to the medical profession an attractive pamphlet of eighty pages devoted to the new chemicals for medicinal use manufactured by the Chemische Fabrik auf Actien, formerly E. Scherling, Berlin, Germany. The list embraces a number of new synthetic products, and the work has been arranged to present in a comprehensive manner the chemical character, physiological and therapeutic actions of the various remedies, with brief clinical reports upon the same. The work is especially valuable to pharmacists in view of the growing use by the medical profession of these new remedies, and those of the drug trade who are interested will be furnished a copy upon application.

The pharmaceutical and medical professions are invited to write to A. Vlscher & Co., 7 Warren street, New York, for a monograph upon Ross' Kraftbeer, a peptonized beer, manufactured by L. Ross & Co., Hamburg, Germany, under the advice of the well-known Dr. Friedr. Witte of Rostock. Such eminent German practitioners as Ewald, Mosler, Weber, Braun, Scheel, Jacoby and others, have testified as to the value of this beer in disorders of the digestive organs, general debility, etc. In view of this fact the efforts now being made by the American agents named above, to introduce the preparation to the profession of this country will, undoubtedly, meet with success, and it is in this success that the retail drug trade can share. Sample and prices will be sent upon application.

A great many goods are advertised nowadays by houses who require the money sent in advance so the purchasers are not assured of what they are buying until the goods have been received. The Columbia Carriage & Cycle Company of Milwaukee are adopting a different method in introducing their new wheel, the Wisconsin Light Roadster, as you will find by referring to their "ad" in this issue. They offer to ship their wheel at a price lower than these goods are regularly sold on a wholesale basis, on sixty days' terms, to parties that can furnish satisfactory financial references, or they will ship C. O. D. and allow a discount of 7 1-2 per cent. from the very low price quoted, giving you an opportunity of inspecting the goods before you purchase them.

California wines are coming to the front, and their general excellence has placed them in active competition with the products of foreign countries. As articles of home production which can compete with those which have for years set the standard, they are certainly worthy of the consideration of a trade in which the question of quality and purity is always paramount. The specialties offered by Charles Stern & Sons, 14-16 Vesey street, New York, are especially adapted to all the possible needs of the druggist. For his Beef, Wine and Iron they will furnish him sherry; for his Wine of Cocoa, their Burgundy and Zinfandel; for general medicinal use, their Port, Angelica or Muscatel, while their brandy for druggists' use is put up in kegs at the distillery to meet the requirements of the trade as to quantity.

In planning the Summer fly campaign, do not forget the green Fly Button. These buttons killed lots of flies and pleased lots of dealers and their customers last season and they will do the same this Summer. The five-cent package consists of six thick circular sheets of green poisoned paper 3 1-2 inches in diameter—just the size to fit the bottom of a sauce dish without overhanging points to carry poison to the outer side. They cost 30 cents per dozen. Orders which jobbers cannot fill will be filled by the manufacturers, The Fly Button Co., Maumee, Ohio, who prepay express charges.

There is one feature of the retail drug trade which receives a due share of attention from some, and is almost entirely neglected by others. It is the handling of surgical supplies in sufficient variety to meet the requirements of the medical profession. The convenience of having a supply of such articles near at hand is one which will be greatly appreciated by the majority of physicians, and the matter is one which will bear some careful study on the part of those druggists who have not given it serious thought. As an aid to consideration of the question attention is directed to the advertisement of the J. Ellwood Lee Company, Conshohocken, Pa., in this issue, and a request for the firm's very complete catalogue of surgical goods and druggists' sundries, which they manufacture, will bring the inquirer much valuable information.



The announcement regarding the new poison bottle lately put upon the market by Carlton H. Lee & Co., 117 Pearl street, Boston, has excited considerable inquiry both from the drug trade and the general public. That the latter is interested is shown by the following comment upon the skull-shaped bottle by the Chicago Times: "It is of blue glass, in order that the contents may better resist being affected by light, and it is molded into the shape of a skull, with the crossbones underneath. The word 'poison' is placed in raised letters on the forehead, and at the base of the skull a space has been left for the red label that tells the nature of the drug. The hollow eye sockets, the jaw bones and the teeth would tell its purpose to a blind man, and ghastly as it may seem to those who are blessed with sight, it is better to be frightened than to die."

In this day of almost numberless medicinal preparations, advertising is an important factor in the success of such articles. This fact is recognized by the California Flg Syrup Co., and the success which they are determined to make for themselves during 1894 is one which they are willing to share with the retail drug trade.

George Lueders & Co., 218 Pearl street, New York, in a recent communication say: "We intend in the near future to issue a circular with some very interesting reading matter about Olive Oil. We have lately submitted some of our oils to chemical tests of different leading chemists in this city, and the certificates of analysis are just as amusing as they are interesting. We desire to give some interesting particulars in regard to tests of olive oil, and also to give some incidents which will tend to show how often and how easily olive oil is misjudged. We have on hand now some of Lautier's Olive Oil which is almost five years old, and which we are willing to submit to any interested party to show that it is perfect in taste, and as good as the same oil of two crops back."

Bear this in mind and see that you get a copy.

The Committee of Revision of the U. S. P., 1880, in recognition of the growing excellence of American wines, dropped the old titles "Xericum" and "Portense," substituting therefor the words "album" and "rubrum," thus permitting the use of any wine of a certain standard. This decision was made over fifteen years ago and sufficient time has elapsed to show its wisdom. That American wines are fully up to all requirements is evidenced by the favor which has been accorded to the products of the Hammondsport Wine Company, Hammondsport, N. Y. Their Golden Age champagne is made by the natural process of fermentation in bottles and their Port, Sherry, White Tokay, Madeira, Sauterne, Catawba, Claret, etc., are especial favorites for medicinal use. As the firm pays special attention to the needs of the drug trade, the latter will find it advantageous to return the compliment.

Have you seen the Decoy Fly Paper manufactured by the Detroit Fly Paper Company of Detroit, Mich.? The following points are claimed for its superiority:

1. The sheet is covered with representations of flies, which act as decoys.
2. The sticky mixture is perfect.
3. The border is part of the body of the sheet and cannot chip off and litter up the carpets and furniture. Being heavily embossed, the border also serves as an effective dam beyond which the sticky mixture cannot run, so that the sheet is always clean when in use.
4. The manufacturers guarantee perfect satisfaction, and will replace any spoiled lot, also any which is carried over and is not perfect, thus insuring customers against any possible loss.

Paper is packed 25 double sheets in box, 10 boxes in case. Each case contains a liberal supply of advertising matter, show cards, etc.

The Cornell-Pheneger Chemical Co., Columbus, Ohio, has changed its name to the Columbus Pharmaceutical Co.

Aside from their inherent good qualities, there is a certain charm which invests the products of the Crown Perfumery Company and makes them popular with the public. This arises from two possible sources, one of which must be the excellent taste displayed in putting up the goods, and the other the happy choice of names by which the goods are known. The *malus coronaria* is rare enough to make its extraordinary beauty and fragrance all the more acceptable, and a perfume which bears its name receives all the benefit which comes from the almost romantic associations which surround it. The words "Crab Apple Essences" have been applied to five toilet requisites, all of which are finding a preferred position upon the toilet table of every lady of taste and refinement. The list includes perfume, toilet water, poudre de riz, toilet soaps and sachets, and the demand for these is indicated in figures showing an annual sale of over 500,000 bottles.

Modern methods of communication, while distinctly advantageous in many ways, are important factors in the spread of disease. This has been shown by the wide prevalence of smallpox during a late period. That all danger has not passed is shown by the active measures taken by the authorities in enforcing vaccination. The drug trade can render an important service by assisting in this work. This cannot be done by keeping a stock of virus on hand, but can be done by keeping in mind the names of those from whom a reliable article can be secured in an emergency. Prominent upon such a list is the name of Dr. Francis C. Martin, Roxbury station, Boston, Mass. The name of Martin has been favorably identified with the propagation of vaccine virus ever since the introduction of animal vaccination in America, and the Martin product still maintains the high standard which has always characterized it. See prices and terms in advertisement in this issue.

Every one conversant with the trade of fine whiskies cannot fail to have observed that rye during the past few years have been steadily and universally making headway throughout the country, each day gaining new adherents and extending their popularity. This is doubtless due to the fact that rye whiskies as a class have been presented to the consumers as matured goods made of the very finest and choicest materials, and with the utmost skill and care that knowledge of the business can command. Clarke's Pure Rye is made in the Fall of the year by Clarke Bros., Peoria, Ill., from carefully selected, new, healthy rye, with barely sufficient barley malt to convert the starch into grape sugar, the formula being 80 per cent. pure rye and 20 per cent. barley malt. No corn is used in making this whisky. In offering Clarke's Pure Rye to the public, Colburn, Birks & Co., the sole distributors, challenge comparison with the foremost leaders as to purity, finish, body, maturity and bouquet.

One would think in studying the long list of beverages, food products, etc., already on the market, that the limit of ingenuity in inventing new ones had already been reached. But such is not the case. The Choco-Lactine Manufacturing Company of 49 Dey street, New York, has a new one in Achor's Choco-Lactine which for soda-fountain use, milk punches, milk shakes and various medical and domestic uses has every appearance of a successful article. It is prepared from pure Caracas chocolate, milk and refined sugar, thoroughly cooked and combined by an original process, forming a perfect food, having considerable sedative effect in inflamed conditions of the stomach, relieving nausea, seasickness, etc., and furnishing an excellent nerve and brain food. The phrase "A cup of chocolate in a minute, sugar and milk already in it," which is being used to advertise the preparation, will surely attract the attention of the public. Its use in making a fountain syrup saves both time and money. Write for prices and particulars. A liberal discount is given to the trade.

Considerable interest is being evinced by physicians regarding the tonic stimulant action of Kola, and it is coming to be largely used in cases of nervous exhaustion, as it combines the invigorating properties of caffeine with the stimulating effects of theobromine and Kolanine, which latter peculiar principle is claimed by some investigators to be superior to cocaine as a stimulant, without the enslaving properties of the latter alkaloid. Kola in the form of a fluid extract is acrid and bitter in taste, which renders it unpleasant to administer, and manufacturing pharmacists have long sought for a means of presenting it in palatable form. After long study and experimental investigation Frederick Stearns & Co. of Detroit, Mich., by an original process have at last produced such a preparation—Stearns' Kola Cordial—that is freed from acrid bitterness. It is one-fourth the strength of the fluid extract, and is in the form of a delicious cordial. Messrs. F. Stearns & Co. were the introducers of Kola to the medical and pharmaceutical professions of this country, and refer inquirers to the New Idea of June, 1882, and June, 1883, where the drug was first mentioned. They have now in press an exhaustive treatise on Kola, its history and therapeutic range, which will soon be ready for distribution to pharmacists who are interested in the subject, and they invite correspondence regarding the drug itself, and Stearns' Kola Cordial, samples of which, with full descriptive literature, will be mailed on request. Write them.

THE BEAUTY OF NIAGARA.

Can never be described, and it has never been pictured so adequately and satisfactorily as in the splendid portfolio just issued by the Michigan Central, "The Niagara Falls Route." It contains fifteen large plates from the very best instantaneous photographs, which cannot be bought for as many dollars. All these will be sent for 10 cents by Frank J. Bramhall, Advtg. Agent, Michigan Central, 402 Monadnock Block, Chicago.

The Silurian Mineral Spring Co., of Waukesha, Wis., desire to furnish proof of their statements regarding the merits of their Wild Cherry Phosphate Syrup as a summer beverage. They offer to do this in a very convincing way by sending a sample free to every druggist who owns a soda fountain. Do you own a fountain?

Many druggists will find it to their advantage to buy their fruit juices and flavors in liberal lots at the beginning of the season, and thus effect quite a saving in the discounts which are offered on large quantities. W. H. Schieffelin & Co., New York, will be pleased to quote special prices on bulk and gross lots to all who desire to avail themselves of a liberal discount.

With a tooth powder bottle like the No. 692, improved, advertised by John M. Maris & Co., Philadelphia and New York, costing \$14.40 per gross, less 33 1-3 per cent. discount, there ought to be both satisfaction and profit for the retail druggist in selling his own tooth powder. This bottle is fully described in an advertisement in this issue, but 10 cents will secure sample, which will show just how it works.

It is entirely unnecessary to call the attention of the drug trade to Jayne's Family Medicines, as there are very few localities in this country where the public is not already doing this. There are two, however, Jayne's Carminative Balsam and Sanative Pills, which are always in great demand during the Summer, and the supply should always be equal to the demand.

Students who are interested in histological research will find an instrument especially adapted to the requirements of such work in Zentmayer's Histological Microscope. Full information regarding it will be found in a catalogue issued by the manufacturer, J. Zentmayer, 209 South 11th street, Philadelphia, who will be pleased to send it to all intending purchasers.

The Chicago Aeriform Carbon Co., 49 West Polk street, Chicago, quote prices upon their apparatus which show that their appliances are within the reach of the average druggist. While this feature may be convincing, much more can be learned of the merits of their goods by writing to them for catalogue describing their manufactures. A simple request will bring it.

The attention of the readers of the Era is again called to the very superior quality of Salicylic Acid manufactured by the Herf & Frerichs Chemical Co., in St. Louis. Their make is of extraordinary whiteness, and excels by its great purity and uniform efficiency. All orders will be promptly filled from their works in St. Louis, or their warehouse and office, 96 Fulton street, New York.—Adv.

With a descriptive catalogue in his possession, such as is furnished by R. Boericke & Co., 435-503 Wells street, Chicago, the retail druggist will be in a position to supply the wants of his patrons for nearly everything in the way of mechanical appliances for the alleviation of suffering. The firm's advertisement in this issue shows the very comprehensive line of such goods which they manufacture.

PATENTS, TRADE-MARKS AND DESIGNS.

From U. S. Patent Office Gazette.

PATENTS.

- 519,693—Making Vanillin.—Julius Bertram, Leipsic, Germany.
519,720—Powder Distributor.—Clinton H. Leggett, New York, N. Y.
619,971—Blue Dye.—Jacob Schmid and J. Bachelut, Basle, Switzerland.
519,580—Compound Edible Fat.—Alexander W. Winter, Chicago, Ill.
620,985—Composition for Removing Hair From the Skin.—Jacob Mallinger, Baltimore, Md.
620,912—Process of and Compound for Extinguishing Fires.—Albert C. Schumacher, Ann Arbor, Mich.
520,914—Method of and Apparatus for Preserving Condensed Milk.—Frederick D. Smith, San Francisco, Cal.
520,965—Pocket Package of Toilet-Paper.—Charles L. Houghton, Northampton, assignor of one-half to J. L. Woodruff, Westfield, Mass.
520,120—Galvanic Battery.—Edwin F. Northrup, Ardmore, assignor to Queen & Co., Philadelphia, Pa.

Reissued.

- 7,688—Processes of Manufacturing Malt Extract.—H. R. Randall, Brooklyn, N. Y.

Expired May 15, 1894.

- 199,855—Composition Seals for Bottles and Jars.—C. M. Jacob, Paris, France.

Expired May 22, 1894.

- 199,954—Explosive Compounds.—Otto Burstenbinder, Humboldt, Mich.
199,964—Apparatus for Making Infusions.—Robert C. Etzenberger, London, England.
199,995—Processes for Bleaching Beeswax.—Jomer T. Yaryan, Richmond, Ind.
191,083—Syringe Cases.—B. F. Sutton, Brooklyn, N. Y.
191,093—Bottle Openers.—E. Bacher, Findlay, Ohio.
191,152—Processes of Manufacturing Glue.—C. O. Harrison, New York, N. Y.
191,298—Continuous Distillation and Apparatus Therefor.—S. Van Syckel, Titusville, Pa.

TRADE MARKS.

- 24,625—Medicated Wine.—W. C. Bevan & Co., Malaga, Spain. The words "Vino de Salud" (Wine of Health).
24,625—Liquid Compound of Celery Seed and Fluid Extract of Sarsaparilla.—Kings Medicine Company, Pittsburg, Pa. The capital letter "B" having the words "Celery & Sarsaparilla Compound" inclosed by and following its outlines with a bull's head protruding from the upper loop of the letter and a bunch of celery from the lower one.
24,628—Remedy for Kidney, Liver & Other Diseases.—Horatio N. Spaulding, Vandalla, Ill. The letters and character, "S. K. & L. V.," the "S" being several times larger than "K," "L," and "V.," with "K" and "V." appearing in its curves, and the character "&" at its right and "L" at its left centrally and all inclosed by a circle.
24,629—Nervine, Tonic, Restorative and Reparative Remedy.—John H. Winklemann, Baltimore, Md. The word "Coccolin."
24,630—Medicine for the Cure of Catarrh.—

- Hoot-Tea Na Herb Co., Akron, Ohio. The words "Red Lion," and the representation of a lion, the attitude of which indicates that he is in quest of prey.
24,631—Medicated Soaps and Plasters and Remedies for the Diseases of the Blood, Skin and Nerves.—Edgar F. Hanson Belfast, Me. The word "Nutriola."
24,632—Liquid Detergent.—Valentine Bellikan, Detroit, Minn. The word "Banner."
24,633—Disinfectants.—Reall, Holliday & Sons, Limited, New York, N. Y. The word "Micromort."
24,640—Dentifrice.—Luis J. de Carballo, New York, N. Y. The word "Eulalia."
24,641—Tonic Medicine.—Anheuser-Busch Brewing Association, St. Louis, Mo. A blue colored band extending diagonally across the label and bearing the words "Columbian Malt Tonic."
24,643—Lactyl Derivatives of Paraphenol.—C. F. Boehringer & Sohne, Waldhof, near Mannheim, Germany.—The word "Lactophenia."
24,644—Remedy for Headache and Neuralgia.—Robert Black, Brooklyn; N. Y. The word "Headline."
24,650—Disinfectants.—Reall, Holliday & Sons, Limited, New York, N. Y. The word "Germol."
24,651—Medicine for Certain Named Diseases.—Peter Petree & Co., near Huntsville, Tex. A circle with the words "Petree's Panacea" following its outline at the top, and "King of Discoveries" its outline on the lower side, with "Or" in its centre.
24,656—Chewing Gum.—The Cleveland Gum Company, Cleveland, Ohio. A portrait of Dr. Brockway, and the words "Dr. Brockway's Acid Phosphate Chewing Gum."
24,656—Certain Named Remedies.—The Dr. Chase Co., Philadelphia, Pa. The words, "Dr. Chase's Blood and Nerve Food."
24,657—Anestho-Anodynes.—Gary & Christopher, Baltimore, Md. The abbreviation and words, "Dr. Jakes Pain Killer," with the letter "K" of the word "Jakes" larger than the other letters, and projecting below and serving as the initial letter of the word "Killer."
24,658—Cod Liver Oil and Preparations Thereof.—The T. A. Slocum Company, New York, N. Y. The words "Slocum's Ozonized Norwegian Cod Liver Oil" superimposed upon the representation of a fish.
24,659—Capsules, Pills and Medicated Jubes.—Warrick Brothers, London, England. The word "Jellodis."
24,660—Nerve Tonic.—Erving L. Eastman, Peabody, Mass. The representation of an ornamental scroll supported by sprays of balsomy blossoms and heads of celery seed.
24,661—Liniment.—Anna W. Wallace, Allegheny, Pa. The word "Four-Fold," and the representation of a bee hive.
24,662—Salves, Ointments, Liniments and Powders.—Clarence Foster, Baltimore, Md. The words "German Army and Navy."
24,663—Ointment.—Thomas Guinean, Seattle, Wash. The representation of a cherub with extended wings, seated upon a bank of clouds and holding a bottle in his hand.
24,677—Flavoring Extracts for Culinary Purposes.—Big Wheel Company, Wheeling, W. Va. The words "Big Wheel."

MARKETS.

A COMPLETE PRICES CURRENT, covering all staples, drugs, chemicals, etc., usually purchased by retail druggists, will be found on page 45 of this issue, in the back part of the journal.

Advanced.	Declined.
Gum Chicle.	Opium.
Benzoic Acid, German.	Balsam Fir.
Menthol.	Balsam Peru.
Sarsaparilla.	Codeine.
Gum Kino.	Chloral Hydrate.
Laurel Leaves.	Salicylic Acid.
Ammonia, Muriate.	Cocaine, Muriate.
Sponges.	Salol.
A.oes, Curacao.	Saffron.
Orris Root.	Sodium, salicylate.
Oil Citronella.	Oil Peppermint, H. G. H.

New York, June 9, 1894.

With the exception of a fair average movement of the more seasonable articles in the drug section of the general commercial markets, there has been no semblance of activity during the past fortnight, and the same influences noted in recent issues still control the situation. Buyers adhere closely to the hand-to-mouth policy, rarely purchasing in excess of immediate or near-by requirements, and the result is that business has continued to be chiefly of a jobbing character. The drug market does not differ materially from other merchandise markets, and efforts to ascertain the principal cause of the general business depression have brought forth expressions of opinion from representative men in the various branches. All seem to agree that the annoying and vexatious tariff question is in the main responsible, and until it is finally disposed of the present condition of suspense will probably continue. Meanwhile speculation will undoubtedly remain dormant, and trading will be restricted to the legitimate wants of consumers. Since our last report several radical changes have occurred in values, but none are directly traceable to the prevailing stagnation, and nearly all the recorded declines are due to causes entirely foreign to the quiet situation. In fact, the tone of the market may consistently be characterized as steady, and there is no disposition shown by holders to force business through the medium of concessions. In some instances lower prices have been named for the purpose of closing out old-crop goods to make way for new, but, generally speaking, there are very few commodities not available at prices below those at which stocks could be replaced; hence, there is little, if any, inducement to urge goods upon reluctant buyers. Nothing has occurred to disturb the financial condition of affairs, and the outlook continues satisfactory.

OPIMUM—Has continued to decline, and the market seems to have reached a condition akin to demoralization. Values have receded until single cases have been sold at \$1.95 and broken lots at \$2@32.05, according to size of order. Stocks are comparatively large, the demand slow, the crop outlook favorable to a liberal yield, and foreign markets continue depressed, but, notwithstanding these adverse influences, some of the larger hold-

ers are still sanguine of improved conditions, and base their hopes chiefly on the probability that when the proposed tariff bill becomes operative it will have opium among the dutiable articles.

POWDERED OPIUM—Continues to droop in sympathy with the gum, and values show a further loss of 10 cents per pound. The demand is light and wholly for small jobbing quantities.

MORPHINE—There is no quotable change in manufacturers' prices, but the continued weakness in opium has a depressing influence, and consumers operate cautiously in view of a probable further decline.

QUININE—Has not developed any new feature of more than ordinary interest, and general business has been of only moderate volume, with the market retaining a steady tone and transactions showing the previous range of values. Stocks in second hands are still sufficient to meet consumers' requirements, but they are gradually diminishing, and all indications are favorable to continued steadiness.

ARSENIC—Saxony red shows a fractional decline, but white is steady, and the market for all varieties remains quiet.

BALSAM COPAIBA—A continued firm feeling is manifest on the part of holders, and there is a fair degree of jobbing activity, with Central American receiving the larger share of attention. Efforts are being made to have all purchases tested for the purpose of discovering adulterants, as it is claimed that the stock of strictly pure is very light and closely concentrated in few hands.

BALSAM FIR—Is dull, weak and lower, with quotations showing a further decline of 25 cents per pound, without stimulating activity. The former large consumers have practically abandoned the use of this article, having substituted Venice turpentine, which is obtainable at a comparatively much lower cost, and is equally efficacious. As a consequence, consumption is materially lessened, and, with the coming crop likely to be unusually large, the trend of values is toward a still lower basis.

BALSAM PERU—The recent advance having checked the demand, holders have modified their views, and quotations have been reduced to the former range, with a subsequent improvement in the volume of business.

BALSAM TOLU—Has been moving moderately in small lots for current consumption at unchanged values.

COD LIVER OIL—The easy feeling noted in our last issue has been eliminated, and the tone of the market is again firm, mainly in sympathy with stronger advices from primary sources of supply, where the principal refiners have advanced their views and offer indifferently. The demand for consumption has been fairly active for all desirable qualities, and leading brands are held at full figures.

CHICLE—Has developed increased activity, and liberal purchases have been made from lots in first hands at advancing prices. The balance of the stock is limited at figures above buyers' views, but it is all in strong hands, and with the statistical position well known, it is not improbable that the figures demanded will be realized when it becomes nec-

24,718—Caustic Soda.—The Northumbrian Chemical Company, Limited, Newcastle-on-Tyne, England. The representation of a lion statant.

24,720—Toilet Preparation.—Delbert E. Prall, Saginaw, Eastside, Mich. The word "Dorothy."

24,721—Complexion Powder.—Emma J. Wormley, Des Moines, Iowa. The word "Psyche" and the figure of a woman representing the said goddess.

24,722—Pharmaceutical Products.—Farbenfabriken, vormals Fr. Bayer & Co., Elberfeld, Germany. The word "Lyceol."

24,723—Medicinal Tablets.—The Antikamnia Chemical Company, St. Louis, Mo. The letters "A. K."

24,724—Medicinal Tablets.—J. Miller Cramp-ton, New York, N. Y. The word "Home."

24,725—Medicine for the Cure of the Tobacco Habit.—Root-Tea-Na Herb Co., Akron, Ohio. The words "Double Shot" and the representation of two cannons placed breech to breech, from which flame and smoke are issuing.

24,726—Certain Named Remedies.—Joseph F. O'Hern, Waltham, Mass. A representation of the heads of four persons in a horizontal row upon a black panel.

24,727—Medicines for Venereal Diseases.—John F. Gilman, Boston, Mass. The words "Sub Rosa."

24,728—Chewing Gum.—Faultless Chemical Company, Baltimore, Md. The word "Chips."

24,729—Hair Grower.—Lyman C. Olds, Baltimore, Md. A portrait of the registrant.

24,730—Preparation to Prevent Seasickness.—Richard Hudnut, New York, N. Y. The word "Marini."

24,731—Condition Powders.—William G. Tishman, Palatka, Fla. The words "Salt Sick."

24,732—Balsams and Ointment.—The Clover Medicine Company, Augusta, Me. The representation of a four-leaf clover and the word "Clover."

24,733—Cough Syrups.—Bruno H. Goll, Chicago, Ill. The word and figures "Article 47."

24,734—Remedy for the Blood.—Bruno H. Goll, Chicago, Ill. A portrait of the registrant.

24,735—Remedies for Purifying and Treating the Blood.—McKesson & Robbins, New York, N. Y. The word "Rochelle-lithine."

24,736—Remedies for Diseases of the Blood.—McKesson & Robbins, New York, N. Y. The word "Tartaralithine."

W. H. Thomas & Son, Louisville, Ky., have made an assignment to the Louisville Trust Company.

The Freeman-Rice Medicine Company, Portland, Me., have failed. It is stated that their liabilities are \$4,500, with assets of but \$932.

The William H. Kiusmann Company, Limited, Los Angeles, Cal., have succeeded William H. Kiusmann & Co. Their offices, formerly at 110 Centre street, have been moved to 369 South Spring street.

The Bartlett Drug Company has opened an office at 235 Washington st., Boston, Mass., where they will carry on the business of drug brokers and manufacturers' agents. They solicit agencies for any specialties relating to the drug trade.

essary for consumers to replenish their supplies.

CODEINE—Manufacturers' quotations show a general reduction of 10 cents per oz. on all sized packages.

CHLORAL HYDRATE—Shows a materially lower range of prices, owing to a change in the rate of duty exacted by the Government appraisers, who formerly classified the article among alcoholic preparations, and required importers to pay a duty of 50 cents per pound. They have since modified their ideas, and now require only an ad valorem duty of 25 per cent. Hence a reduction of about 30 cents per pound.

BENZOIC ACID—The German article in one-pound packages is scarce and higher, quotations showing an advance of 10¢ cents.

SALICYLIC ACID—Values have been reduced 15¢20 cents per pound here, and about 30 per cent. in Europe, the decline being attributed to efforts of manufacturers to force new competitors to make terms or retire from the business. Current quotations are \$1.07 for one-pound boxes \$1.12 for halves, and \$1.17 for quarters, packages inclusive.

MURIATE COCAINE—Is unsettled and materially lower, the revised quotations showing a decline of fully 70 cents per ounce. But one or two holders are not meeting the reduction, claiming that the new prices are below cost of production. Ounce vials are obtainable at \$4.75, halves \$4.50, quarters \$4.85 and eighths \$4.95.

SALOL—Is in a similar position to that of Salicylic Acid. The combination of manufacturers have met with fresh competition, and in order to force an issue have made a reduction of 75 cents per pound on all the various styles of packages.

MENTHOL—Is held firmly at the recent advance, and, with foreign markets hardening, still higher prices are anticipated.

SAFFRON—A continued fair jobbing business is in progress, but the near approach of new crop influences a weak feeling, and the principal holders have again reduced prices 10 cents per pound, and a further decline is among the near probabilities.

SARSAPARILLA—Is again slightly higher, with the tone of the market strong, and available stocks are under good control. Business in a jobbing way shows fairly liberal proportions.

CELERY SEED—Is unsettled and irregular, with quotations showing a comparatively wide range. A few parcels recently taken by outside speculators have been offering at concessions for the purpose of realizing (the anticipated advance not having materialized), and the consequence is a depressed market. On the other hand the principal holders decline to meet the cut in prices and are evidently of opinion that the condition of the market will improve, as the new crop is not likely to arrive in time to meet the early demand from consumers.

GUM KINO—Shows increasing scarcity, and prices have again been advanced 10 cents per lb.

LAUREL LEAVES—Are fractionally higher, in sympathy with primary markets.

MURIATE OF AMMONIA—Cable advices report an advance in primary mar-

kets, and, with white grain scarce on the spot, values are slightly higher and firm.

SPONGES—All indications are favorable to higher values. The old crop of all varieties is practically exhausted, and the new crop promises to be unusually small, both of domestic and foreign. The first arrival of new Florida at the primary market was only a limited quantity and occasioned active competition between buyers, which resulted in prices being marked up fully 33 per lb. Advances from European markets report increased scarcity there also, with a 10 per cent. advance in values.

ALOES—Cape and Curacao have been fairly active for consumption, but there is no change in values of the former. The latter, however, show increasing firmness, particularly for round lots, which are held fully 1-2 cent above jobbing prices.

JALAP—The tone of the market is improving, and supplies are held with a greater degree of confidence. Several parcels in first hands have been taken by dealers, and there is a fair consuming outlet for desirable qualities.

SALICYLATE OF SODIUM—Manufacturers have reduced prices 10 cents on pound packages and 1-2 cent on ounces. The latter are now quoted 8 cents, vials extra, and 10 cents, cartons included.

ORRIS ROOT—A liberal business in Verona varieties has resulted in concentrating stocks more closely, and a consequent hardening of prices, all quotations being about 1 cent per lb. higher.

OIL CITRONELLA—Is unusually scarce and, with the demand from consumers active, values are firm at an advance of 1 cent per lb.

CACAO BUTTER—Is easier abroad, and supplies here are available at slightly lower figures.

OIL PEPPERMINT—H. G. H. is in better supply and lower, with jobbing sales showing a decline in values of 5 a 10 cents.

BRAZIL WAX—Arrivals have been unusually heavy, and further shipments are said to be on the way. The result is a weak and sagging market.

MAGAZINES.

The following is a brief mention of the important features of the June magazines:

The North American Review devotes considerable space to the absorbing question of the day, and under the head of "The Menace of Coxeyism," three papers are presented, by Major-General O. O. Howard, Thomas Byrnes, Superintendent of Police, New York, and Dr. A. H. Doxy, Chief of the Bureau of Contagious Diseases, who each treats the subject from his respective standpoint. Secretary of Agriculture Morton also refers to the same matter incidentally in his article on "Protection and the Proletariat." Other political matters are brought to notice by articles from Sir E. Ashmead Bartlett on "The Political Outlook in England;" Prince Urbielde on "Mexico Under President Diaz;" Edward Stanwood on "How to Relieve Congress," and M. G. Mulhall on "Continental Finances." Other

articles of more than ordinary interest are "Fashion and Intellect," by W. H. Mallock; "The New York State University," by Bishop Doane; "The Modern Girl," by Sarah Grand; "The Cry of the Women," by Elizabeth Bisland; "Our Family Skeleton," by John F. Hume; "The Problem of the Racing Yacht," by George A. Stewart; "What Should a Doctor Be Paid?" by Dr. W. A. Hammond.

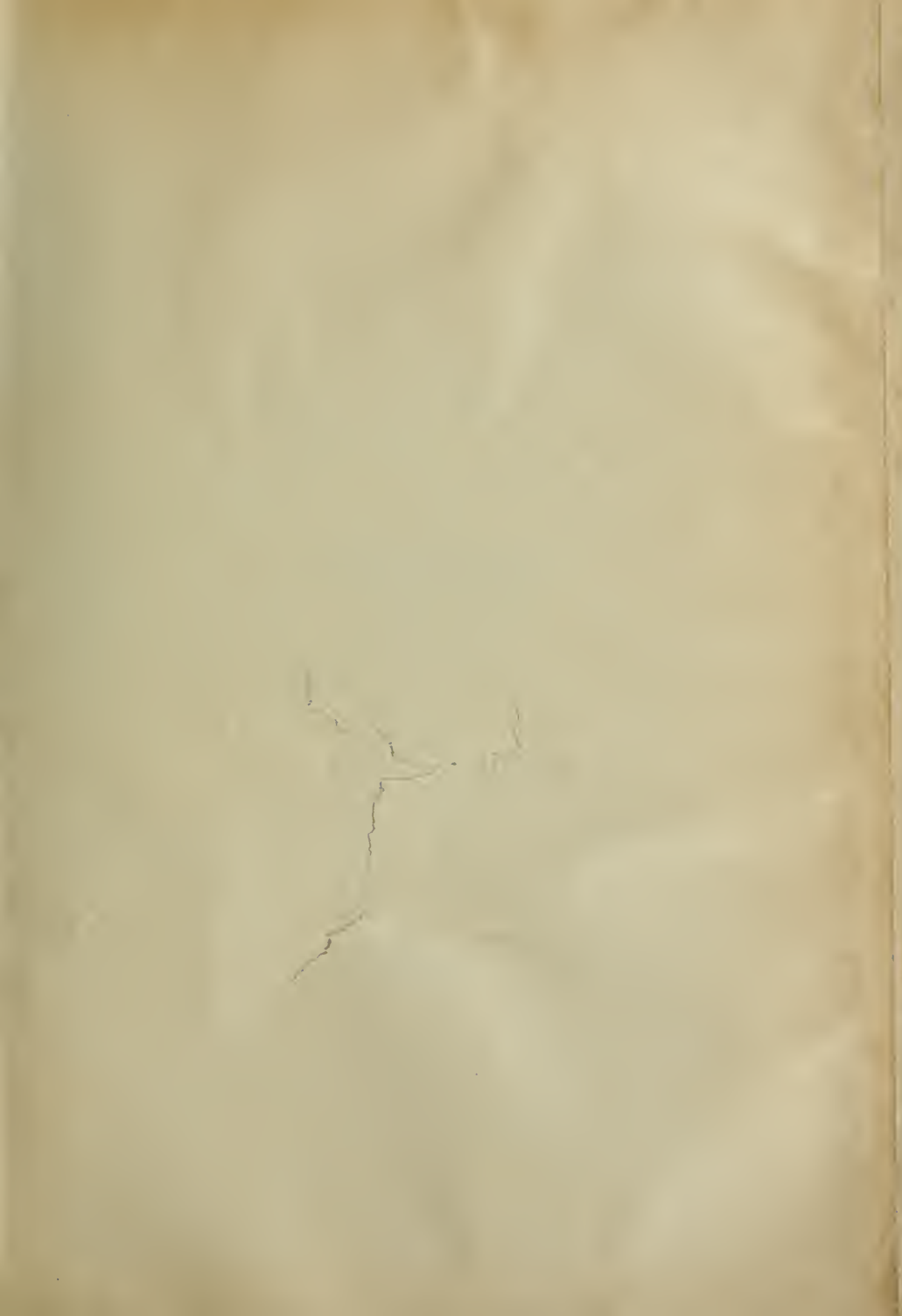
The Century has for its frontispiece a portrait of Kossuth in 1851, and, in connection with the lately revived interest in the great Hungarian patriot, presents a paper by W. J. Stillman, entitled "On a Mission for Kossuth." Among the notable articles are "The Government of German Cities," by Albert Shaw; "The Consular Service and the Spoils System," a series of articles by eleven ex-Ministers of the United States; "The Ascent of Mount Ararat," being the second paper in the series "Across Asia on a Bicycle;" "A Cumberland Vendetta," by John Fox, Jr.; "Field Notes," by John Burroughs; "The Loosened Cord," by A. W. Drake; "Edison's Invention of the Kinetograph," by Antonia and W. K. L. Dickson; "A Loan of Half-Orphans," by Thomas A. Janvier; "Old Dutch Masters: Adriaan Van Ostade," by Timothy Cole; "Tissot's Illustrations of the Gospel," by Theodore Stanton; "The Mother of Ivan Tourgenieff," by Hjalmar Hjorth Boyesen; "Bookbindings of the Present," by Brander Matthews; "The Magic Egg," by Frank R. Stockton, and the conclusion of "Pudd'nhead Wilson," by Mark Twain.

Lippincott's has for its complete novel a romance of Virginia entitled, "The Wonder-Witch," by M. G. McClelland. "Sea Island Cotton Respun," by Dora E. W. Spratt, is a sketch of the manners and customs of the inhabitants of the Islands of that name during the civil war. "The Passing of the Essay" is the title of an article by Agnes Repplier, which, as might be expected, contains much proof that the day of the "essay" is not past. The new mail route from London to Yokohama via the Canadian Pacific and New York Central railways forms an interesting theme which J. Macdonald Oxley has enlarged upon in an article entitled, "The New Northwest Passage to the Orient." Richard Henry Stoddard, in "My First Literary Acquaintances," tells of the beginning of a career which is the admiration of all lovers of good literature. Anna Fuller relates a case of righteous homicide in "The Rumpety Case." E. Gordon Hays furnishes a sketch of lowest New York life in "Two in the 'Other Half,'" and Morgan S. Edmunds describes pioneer life in the Argentine in his sketch entitled "Hot Work on the Pampas."

You may not be able to sell as many of the "Whiting" brushes as you can of an inferior kind, but you will have more customers, because the brushes give good satisfaction and do not wear out quickly. This is the season when brushes are in demand, and the above point should be remembered when such goods are ordered.

A young man who wished to purchase a bicycle upon the "insolvent plan" bulled better than he knew when he so constructed his request.





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