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# CANADIAN DRUGGIST.

DEVOTED TO THE INTERESTS OF THE GENERAL DRUG TRADE AND TO THE ADVANCEMENT OF PHARMACY.

Vol. 5.

STRATHROY, OCTOBER, 1893.

No. 10.

## CANADIAN DRUGGIST.

WILLIAM J. DYAS, - Editor and Publisher.

SUBSCRIPTION, \$1 PER YEAR IN ADVANCE.

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The Canadian Druggist is issued on the 15th of each month, and all matter for insertion should reach us by the 5th of the month.

All cheques or drafts to be made payable to the editor. New advertisements or changes to be addressed

CANADIAN DRUGGIST,  
STRATHROY, ONTARIO.

ENGLISH OFFICE,

16 Truelock Road, Tottenham,  
LONDON, N.

### Substitution.

From a paper by ADDISON-DIMMITT, read before the Kentucky Pharm. Association.

This word is derived from the Latin word *substitutum*, meaning putting under; or, in the sense we use the word, replacing a given thing with something less valuable, either in its effects or cost.

In pharmacy it is a practice that should be condemned by all druggists, and I think it is by all honorable and just members of our profession. Understand me, I refer to dishonest substitution, for in a case of emergency it may become necessary, or when it is impossible to find the article prescribed, and with the consent of the physician it is permissible. This kind of substitution we may call legitimate.

Let us view the evil results or effects of substitution from the standpoint of all parties concerned, the patient, physician, manufacturer, and druggist, and show, if possible, that it is detrimental to the interests of all.

*The Patient.*—The effects of substitution on the patient is the most vital point we have to consider, as it may be a matter of life or death to him.

If it be substitution in a prescription, see what might be the effect. If at a critical period in the disease, when life hangs by a thread, and the medicine does not have the expected effect, death is the result: or in ordinary cases, if the patient does not feel any beneficial effects, he becomes disheartened, loses confidence both in physician and medicine (and, as we all know, without faith little good can be accomplished), and the recovery is much retarded,

Then we have to consider the expense the patient has incurred. He is paying the physician for advice and the druggist for something he does not get, and the loss of time from his labor, which perhaps would not have occurred if the druggist had not substituted.

*The Physician.*—The physician informs himself on the therapeutic value of a drug, chemical, or proprietary preparation, as it may be, by reading in the different journals or circular matter the opinions of others on the effects and benefits to be derived by the use of this particular remedy. He prescribes it in the first case he may have where its use is indicated, and awaits results with interest.

The prescription has been taken to an unprincipled druggist who substitutes; the effect is not what has been claimed for it; he naturally thinks it the fault of the remedy, and condemns it at once, or if he has used the preparation before and was positive of the results, he knows it was the fault of the druggist, and places the stigma where it justly belongs, and perhaps for the misdeed of this one druggist the entire profession is condemned.

So you see by this illustration that a physician's skill, efforts, and intelligence are all wasted by the effect of substitution, and possibly the loss of a very remunerative practice, as that often depends upon the success of the remedies he prescribes.

*The Manufacturer.* The manufacturers of chemicals, pharmaceutical or proprietary preparations employ chemists at a large salary, who are thoroughly educated in the special line of goods their respective houses manufacture. They devote their entire time and attention to perfecting old formulas or developing new and improved ideas.

After doing this the manufacturer goes to great expense in getting the goods before the public, or medical profession, as it may be desired; then, if the article be one of merit, it will soon meet with the success it deserves.

How does substitution affect them? First, if it be a chemical or pharmaceutical preparation, the physician is the one to whom it is presented. He gives it a trial. Substitution is practised; the effect is not what was claimed for it. The physician condemns it at once, discourages its use by his brother physicians, and loses confidence in any other preparation this house may put on the market. If this should occur in several instances, he

loses faith in all progressive ideas, and drags back to calomel and rhubarb that were taught him probably twenty-five years ago. So the manufacturer has not only lost the sale of the preparation, but a friend in the physician.

The classes of manufacturers that suffer most by substitution are those making proprietary or patent preparations. They have to contend with the line of remedies of like nature that the retail druggist prepares and substitutes for their goods; or, if it should be an unscrupulous druggist, he might sell an imitation prepared to imitate, as near as possible, the popular remedy of the day without laying himself liable under the law. The full intent is to deceive the public and take advantage of the demand, created by advertising, for the remedy imitated,

Do you not think, brother druggist, that the manufacturers are rightfully and justly entitled to the profits derived from the sale of an article they have originated, and for which they have created a demand? If this profit be taken from them, there is not the same incentive to continue in the march of progression; for you know that the pecuniary advantage derived thereby is the motive power, and I am afraid we would find very few, if any, who are philanthropic enough to work for glory alone.

*The Druggist.*—This paper, as I originally stated, only applies to those druggists who substitute, having no compensation as to the medicinal effect, their own reputation or that of the profession they do so little credit. In our business, I believe, and am glad to say, that this class of men is decidedly in the minority.

The incentive for substitution by druggists, as we all know, is a *greater profit*.

Let us all look at it from a strictly financial standpoint, aside from the moral view of the question, and see if it is more profitable or not.

Suppose a druggist buys only the very cheapest, represented by an inferior class of goods, that is obtainable; he does not consider quality, his idea being that the public is ignorant concerning drugs. He thinks it is the cheaper prices people want, and that they will always come to him because he sells cheaper than his competitors.

Then, on the other hand, another druggist is extremely careful in the selection of his stock, watching and examining every article that comes into his store, buying only from those in whom he has

confidence. It is quality he wants, and he thinks the best is always the cheapest. He does not consider his neighbor in pricing his goods, but makes a fair, legitimate profit that is consistent with the quality of the drug he sells.

Which method of doing business is more profitable in the end?

It is a known fact that the American people, as a rule, are easily humbugged. They always want something for nothing. Their eye is caught by glaring advertisements of cheap prices. But they are too smart to be caught twice by the same trick, especially on a matter of such vital importance to them as pure drugs.

Do you think a man would go to a drug store a second time where he had not received pure drugs, what he asked and paid for the first time? I answer, No; at least it is not reasonable to suppose he would. Therefore I contend it does not pay a druggist, from a profitable or financial standpoint, to substitute cheap and inferior goods for those which may cost more but which are pure.

Now let us moralize a little on the subject:

The druggist who will sell you inferior drugs will substitute or take an unfair advantage of you whenever the opportunity presents itself. In a very short time all with whom he comes in contact will find him out. His methods are dishonest, and he is not to be trusted. His natural trade drifts from him; he has lost the respect and confidence of all. The physicians shun his store and advise their patients not to deal there, as they can not get pure drugs; while the druggist who is fair and honorable in his dealings, and who keeps nothing that would reflect discredit on his business, or the reputation of the physician, wins the confidence and respect not only of his immediate trade, but attracts from his neighbor. The physician places the utmost confidence in him and recommends his patients to go there, for he knows they will get what he prescribes and can depend on the results.

I believe the public is rapidly becoming educated to the point of selecting their druggist with the same discretion and judgment they use in the choice of their physician, and the druggist who conducts his business honestly and conscientiously will be fully appreciated by the desirable trade.

Another point frequently advanced by druggists as an excuse for substitution is that physicians prescribe every new preparation that is called to their notice. They specify a certain make, when the druggist may have in stock his own or some other make that is equally efficacious. It is a great temptation to substitute, for you all know it may be the only prescription he may receive for that particular make, and the remainder of the package is an entire loss. This condition is to be deplored, but for the present we have to submit as gracefully as possible. The only proper thing to do, if possible, is to get the preparation, charge near cost, so as to make yourself safe, then trust in the

Lord to sell the rest—but under no condition or circumstances substitute. Then you have done your duty to patient, physician, manufacturer, and druggist.

#### HOW TO PREVENT IT.

It is very easy to see the evil effects of substitution, but to correct this evil is a very difficult matter.

We could perhaps formulate a State law that would cover the point, and with heavy penalty attached might have some effect, but even that would only be an assistance, not a cure of the evil. If a man has a desire to practise fraud he will in some way accomplish his ends, whether by foul means or otherwise.

I believe the only and true way to correct this practice is to show the druggists (who are as a class intelligent men) the amount of unnecessary suffering it causes the consumer, the reflection on the reputation of the physician, the injustice done the manufacturer, and that it is dishonest for the druggist and not profitable in the end.

Let the pharmaceutical journals and druggists' associations take up the fight and push it into the enemy's camp; and, if the battle be waged with unceasing energy and vigor, I believe that right and justice will in the end prevail, and in a short time substitution will be a thing of the past.

Let us have more faith in our fellow-men, for that is the foundation of all success in life. Let us hope our brother druggists will see the error of their way and join us in our efforts to do right. Let us be charitable, say no evil of our neighbor. If he talks unfairly of you, rebuke him by speaking well of him.

If we will observe these axioms we will find more harmony and good feeling existing in our business relations than was ever known before.

#### To Sterilise Water.

Dr. Burlureau, Professor Agrégé at the Val-de-Grace Military School, has devised a sterilising proceeding which has the merit of simplicity. Bacteriological researches have established the fact that, in depriving water of its lime salts, it is at the same time rendered free from microbes. Clarke's process (addition of quicklime) is relied on to rid the water of its calcium carbonate, and sodium carbonate is employed in the case of specimens containing calcium sulphate. In practice Dr. Burlureau recommends the use of a powder which is composed of lime, sodium carbonate, alum and ferrous sulphate in varying proportions, according to the degree and kind of hardness of the water. For the dreaded Seine water the powder recommended is thus composed:—

R Quicklime .....	9 parts.
Carbonate of Sodium.....	5 parts.
Powdered Alum .....	1 part.
Powdered Iron Sulphate .....	1 part.

As a rule, from thirty to fifty centigrammes would sterilise a litre of water. The powder is added overnight and the

water decanted in the morning for consumption. A knowledge of this simple means of sterilization—based as it is on scientific data—will perhaps be found useful in these times of cholera.—*The Lancet.*

#### Gallate of Mercury.

Brousse and Gay, in a paper read before the Academie des Sciences, give an account of experiments with this body as an anti-syphilitic. The method of preparation is as follows:—

℞ Acid gallic crystal .....	37.6 gr.
Hydr. oxid. flav. ....	21.6 gr.

Mix the bodies by rubbing in a mortar; add 25 cc. of distilled water to obtain a semi-fluid paste. Leave the mixture in a mortar for two days; powder the mass and dry over sulphuric acid. This may now be used in the form of pills of the following composition:

Hydr. gallate .....	.05 gr.
Ext. cinchona .....	.10 gr.

The authors have tried the remedy on thirty different patients, and find that it is very rapidly absorbed, and very efficacious, whether in the early stages, or during secondary symptoms. They urge that its therapeutic effect is as great as the bichloride or biniodide of mercury, and that it is not poisonous in the usual doses, and does not produce any of the disagreeable effects of the bichloride.—*Comptes Rendus.*

#### A New Paste.

Here is a new French recipe which any of our readers who experience difficulty in getting their labels to adhere to glass, porcelain, or metal, may very likely succeed with. It is called from the *Nouveaux Remedes* for November, 1892, p. 1:

Gum arabic.....	120 parts by weight.
Gum tragacanth.....	30 "
Glycerin .....	120 "
Oil of thyme .....	2½ "

Macerate the gums separately in a little water; shake the gum tragacanth until a sticky emulsion is produced; mix in the gum arabic solution, and then filter through fine linen. Next add the glycerin, in which the oil of thyme has been previously dissolved, finally make the liquid up to about two pints with water. It is better to use distilled water. The paste is stated to possess very remarkable adhesive properties, and to keep well in sealed bottles.

**PURIFICATION OF FIXED OILS.**—When fixed oils, like olive, peanut, benne, or cotton-seed oil possess a disagreeable taste they are sometimes purified by mixing with a weak alkali, then adding a dioxide like manganese or barium dioxide, which readily evolves oxygen, the amount depending on the oil, incorporating the whole thoroughly for ten or fifteen minutes, then setting aside for two hours, when the whole is saturated with carbon dioxide, and at the end of twenty-four hours the oil is decanted and filtered.—*Drug. Ztg.*

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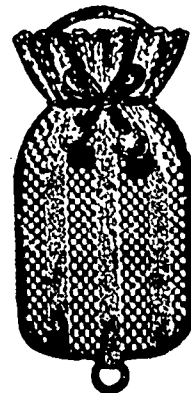
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# Wine of Cod Liver Oil

WITH PEPTONATE OF IRON



Is an entirely new and original preparation, containing 25 per cent. of pure Cod Liver Oil, as represented by its active medicinal constituents, Morrhaine, Butylamine, Amylamine, Iodine, Bromine and Phosphorus.

Modern investigation has proven that the value of Cod Liver Oil as a medicinal agent is not due simply to the fact of its being an oil, but to the valuable active principles which it contains, as noted above.

Each fluidounce of the Wine contains four grains of PEPTONATE OF IRON, the most readily assimilated and most valuable of all forms of iron, it being partially predigested and free from styptic properties.

The fact that iron is prescribed in so many cases where Cod Liver Oil is required, verifies the ingenious, yet scientific combination of this preparation, which now fills a long felt want as to how to administer in an agreeable manner the very agents much needed.

This preparation does not cause eructations or nausea, as does the oil, but is pleasant to take and thoroughly active. The dose may be increased somewhat with its use, if thought desirable.

The Wine notably increases the strength of the patient, as increased weight is evidence of returning health. It is valuable in nervous affections of children, acting especially on the nerve centers, thus not only assisting but preventing nervous disorders.

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Protect your Eyes from Dust and other Flying Particles, and from Cold Winds and Snow in the Winter Season.

## The Lamb "Eye Shield"

PATENTED APRIL 14, 1891.

FLEXIBLE, WATERPROOF & NON-HEAT-CONDUCTING.

The Cheapest, Lightest and Most Durable Eye Protector ever presented to the public.

The LAMB "EYE SHIELD" fits closely to the face, around the eyes, a soft, perforated felt rim on the face side rendering it impossible for dust or any other substance to enter between it and the skin. Small perforation in the felt rim admit sufficient air for the eyes to retain their normal moisture. The lenses are formed of the clearest mica and are perfectly transparent. There is consequently less liability of injury to the eyes, with this Shield, in case of accident, than with other similar devices in which glass lenses are used.

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Each shield is neatly packed in a box convenient for being carried in the pocket.

Shields furnished with PLAIN or NICKLE frames, and with CLEAR, BLUE or SMOKE lenses, as desired.

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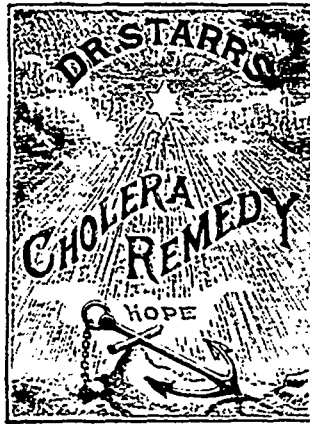
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**Combination Fountain Syringe  
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2 quart, with Enema attachment.

A Fountain Syringe, Water Bottle and Enema in one.

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1, 2, 3, and 4 quart.

We are Special Agents for

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For either Water or Oil.

No. 1, Long Straight Tip, - \$ 6.50 doz.

No. 2, Long Straight Tip & extra tip, 8.00 doz.  
For back of throat, either up or down.

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## TRADE NOTES.

Dr. Williamson has opened a business at Naksup, B. C.

Ball & Co. are opening a drug business at Elkhorn, Manitoba.

Dr. R. W. Shaw has opened a new drug store at Lucan, Ont.

W. Thornton, Calgary, N. W. T., has sold his drug business to O. H. Bott.

C. B. Abshear, druggist, of Stephenville, Texas, has been visiting friends in Ontario.

Leonard & Papineau, druggists, Montreal, Que., have dissolved partnership, Mr. Leonard retiring.

The drug business of the late J. S. Petrie, Guelph, Ont., has been sold to Charles Law & Co.

W. B. Montgomery, druggist, corner of Yonge and Gerrard-sts., Toronto, has assigned to Mr. C. Scott.

Godfrey Papineau, druggist, Montreal, Que., has registered as doing business under the name of Leonard & Papineau.

Amongst the Canadian cricketers who are now playing in Toronto against a Canadian team, is a Queensland (Australia) druggist, Mr. A. Coningham, who has the credit of being a good bat and very destructive bowler.

R. R. Martin, at one time a prominent druggist in Toronto, Ont., but who has for some time had the management of the New York house of Sharp & Dohne, has gone to England to establish an agency of that house in that country.

Amongst the recent Presidential appointments of consuls in the United States, we notice that two druggists have been given public posts. Mr. George T. Taite, of Boston, being appointed to the Barbadoes, and Mr. Charles S. Hazeltine, of Grand Rapids, Mich., to a similar position at Milan.

Mr. Henry Lyman, senior member of the wholesale drug firm of Lyman, Sons & Co., Montreal, was presented with a congratulatory address by the employees of the firm on the occasion of his reaching his eightieth birthday on the 4th of October. The address was presented at his residence and was read by Mr. Thos. Boyd, chief book-keeper of the firm, and was signed by the eighty-five employees of the firm. A congratulatory telegram was also received from the staff of the Lyman Brothers & Co. drug house of Toronto.

The Chicago *British American*, of the 7th, says:—"Ural Forshee, a druggist of Florence, Ont., dropped dead in a sleeper attached to a Wabash train at the Polk street depot on Thursday night, Oct. 5th. Mr. Forshee left his home in Canada one day previously to visit the Fair, and stopped while in the city with friends at 6715 Prairie avenue. He was accompanied to the car by a number of friends, who bade him good-by as the train was about to start. Suddenly, as his friends were

preparing to leave him, he turned pale and fell over in the car. When lifted into an upright position it was found that life was extinct. Death is supposed to have been due to heart disease.

## Pharmaceutical Association of the Province of Quebec.

The adjourned meeting of the Council of the Pharmaceutical Association of the Province of Quebec was held in the committee room, 595 LaGauchetierre street Montreal, on Tuesday, September 5th, 1933.

Mr. Joseph Contant, president, in the chair.

Business of the meeting being to elect the examiners for the preliminary examinations, it was moved by Mr. D. A. Mann, seconded by Mr. A. E. DuBerger, that Mr. Isaac Gammell and Mr. A. Leblond de Brunet be appointed as the examiners for the preliminary examinations of the association for the balance of the current year. Carried.

Resolved,—That the preliminary examiners shall be paid the sum of ten dollars each for every quarterly examination, and that the Quebec druggist who shall be charged with the supervision of the said examination in Quebec shall be paid the sum of five dollars for each examination held. Carried.

Moved by Mr. A. E. DuBerger, seconded by Mr. A. D. Mann, that Mr. A. LaRue be appointed as supervisor of the preliminary examinations in Quebec, whose duties will be to receive the questions from the secretary, deliver them to the candidates on the day of examination, attend on the candidates when writing out the questions, collect their papers and forward them to the secretary at his earliest convenience. Carried.

Resolved,—That the present preliminary examiners' committee be continued, and that they meet with the newly-appointed examiners and arrange upon the best mode to adopt for drafting and delivering the questions to the candidates for the next October preliminary examination.

There being no further business, the meeting closed.

The regular meeting of the Council was held September 5th.

Joseph Contant, Esq., president, in the chair.

The registrar reported that the association attorney had given his opinion to the effect that there was no appeal from the judgment of the Circuit Court judge in the Mathieu case.

The registrar, as the authorized official delegate, read his report of the meetings of the American Pharmaceutical Association and the International Pharmaceutical Congress meetings held in Chicago, commencing on August 14th and closing August 23rd, the report setting forth the cordial manner in which this Association's delegates had been received, and the honor which had been conferred upon this

association by the appointment of the registrar as vice president and Mr. S. Lachance as vice secretary for this province, of the World's International Pharmaceutical Congress.

This report was considered very satisfactory and a vote of thanks tendered to the registrar for the manner in which he had represented the association at the World's Columbian International Pharmaceutical Congress in Chicago.

The other delegates accredited from this association were Messrs. Lachance, Morrison, Carriere, and W. B. J. Brunet; these, with the exception of Mr. Brunet, presented their credentials and took part in the several meetings.

Resolved,—That the semi annual examination for major and minor candidates be held in Quebec commencing on Tuesday, October 17th next, and that the secretary be authorized to make the necessary arrangements for said examination.

An official communication was read from the Ontario College of Pharmacy, fully approving of the movement of this association in the direction of obtaining an official standard for all medical preparations and the formation of a Dominion Pharmaceutical Association, and with a view to facilitate this movement the Ontario College has nominated its president and vice-president, with power to add to their number, to act in unison with this association and the sister pharmaceutical associations of this Dominion.

The secretary was instructed to reply to this communication and to confer with the other associations of the Dominion on these subjects.

## College of Pharmacy.

The Ontario College of Pharmacy students held a meeting on Saturday, Sept. 30th, for the purpose of reorganizing their College Association and electing officers for the ensuing term. The following were elected officers:—Honorary President, Chas. F. Heebner, Phm. B., (Tor.), Ph. D., (N. Y.); President, Fred. J. Crease, Barrie; Vice-President, Milton McIntyre, Toronto; Secretary-Treasurer, Ira E. Belfry, Meaford; Committee of Management, Messrs. H. W. Mitchell, Toronto; Will S. Kiddie, Oshawa; Arch. Henderson, Ayr; F. B. Bunting, Toronto; Tom Allen, Toronto.

## Pharmaceutical Examinations.

Thirty-five candidates of Montreal and six of Quebec presented themselves at the preliminary examinations of the Pharmaceutical Association of the Province of Quebec. The successful candidates are Messrs. Joseph Joseph Queeneville, of St. Henri; A. R. Webb and E. J. Thivierge, of Montreal. The names of the candidates who passed on all subjects but history are Valmore Ledoux, Granby, and T. E. Gagner, St. Alme of Richelieu. The examiners were Prof. Isaac Gammill and Prof. A. Leblond de Brumath.

## Montreal Notes.

A. Robert, pharmacist, St. Lawrence Main St., came out best in the action against him, brought by the Government, with regard to the alcoholic strength of his essence of ginger, and it is expected that S. Lachance will do the same in his tincture of jalap case, at least, that is the probability at the time of writing. There are one or two more cases of the same kind to come before the Courts it is said.

It seems absurd for the Government analysts to be fussing about the alcoholic strength of a tincture when the people are swallowing daily tinned fruits and vegetables containing lead; soda water and lemonade containing copper, and lager beer containing catechu and sulphuric acid; not to speak of tea, pepper, mustard, and pickles all of which are articles of daily consumption and which are notoriously adulterated. It would be interesting to know the proportion of chicory in the average corner grocery coffee.

The partnership previously existing between Messrs. Papineau & Leonard has been dissolved. Mr. Papineau intends in future to carry on the business on his own account under the firm name of Papineau & Leonard. Mr. Leonard will continue his own business on St. Lawrence Main st. as usual.

At the meeting of the Council of the Pharmaceutical Association, held on Sept. 5th, Mr. Isaac Gammell, of the High School, and Mr. A. Leblond de Brumath were appointed examiners for the preliminary examinations for the balance of the current year.

The members of the Pharmaceutical Association who represented that body at the recent International Congress in Chicago were Messrs. Ebenezer Muir, S. Lachance, Carriere, Brunet, and Morrison. These gentlemen were well received, and give a good account of the festivities inseparable from such occasions. Mr. Muir gave a full account of the good work done in the past in this Province by the Association, and Prof. T. D. Reed, of the College of Pharmacy, sent down an excellent paper on the manufacture of potash which was read by one of the members and which was very favorably spoken of. Dr. T. D. Reed is one of the most popular teachers at the College of Pharmacy here. He was apprenticed to the drug business and was an assistant for some years before studying medicine.

The old firm of Pecault & Contant is having a new plate glass front put into their pharmacy on Notre Dame st. It will be a decided improvement and with the new front being put in on the opposite corner will brighten up the street considerably.

The many friends of W. H. Griffith, of Wellington st., Sherbrooke, will be pleased to hear of the great improvement which has lately taken place in his health. He is at business again for the greater part of the day.

## Prince Edward Island Notes.

Dr. Darrach, of Kensington, and Mr. A. S. Johnson, of Charlottetown, have been taking advantage of a C. P. R. excursion to visit the great North-West.

D. O'M. Reddin is at the World's Fair.

Albert Crosby, having left Dr. Dodd's employ, is now behind the counter of Apothecaries Hall.

During the Provincial Exhibition F. de C. Davies made a display of his ointment in the Exhibition Building.

At the same time two windows attracted attention. Mr. Johnson had a cottage built of boxes of Everybody's Pills, and Mr. Watson suspended a large anchor of sponges above a window piled up with soaps. All the drug stores were closed during the last afternoon of the exhibition.

Dr. Dodd is to spend the winter abroad.

Mr. Watson was one of the six successful competitors winning prizes for correct answers to the questions in the *Chemist and Druggist* Diary Competition for 1893.

It is expected that the present Apothecaries Hall will be replaced next year by a handsome new building, suggested plans of which were exhibited in the window of Mr. Hughes' drug store during the past month.

## Notes From England.

(From Our Own Correspondent.)

The long expected new edition of the United States Pharmacopœia has come at last. With a touch of polite fiction it is dated 1890, but is not to come into force until 1894. From a brief examination of its pages I am glad to join in the chorus of approval that has so far greeted it. The real value of many of the changes can only be appreciated by the experience which time and opportunity will afford. The majority of the additions are welcomed although a large number appear strange to English pharmacists. The newly coined word "Emulsum" has the advantage of being readily understood at a glance. The standardization of extract of nux vomica, so as to contain 15 per cent. of total alkaloids, is a step towards the uniformity in strength of poisonous preparations that ought to prevail more between the B. P. and the U. S. P. It is rather disappointing that during the interval of nearly nine years since the publication of the last edition of the B. P., there has been no attempt to differentiate between the brucine and strychnine in nux vomica and its galenic preparations. According to Dr. Lauder Brünton; F. R. S., pure brucine has little or no physiological action, although this statement has not been confirmed. No complaint can be made as to the altered strengths of pepsin and powdered opium, which are steps in the right direction. The B. P. will certainly have to follow this step, as at the present time ordinary commercial samples

of powdered opium and pepsin have to be diluted with inert material to reduce them to the B. P. standard.

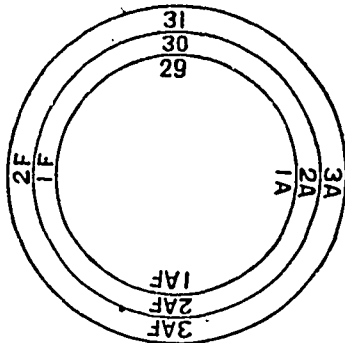
The production of rectified spirit and the details connected with this important industry are always of interest to chemists. The practical paper that has just appeared in the *British and Colonial Druggist* gives some idea of the enormous production which takes place in this country, and what an important addition is made to the revenue merely from the spirit employed in pharmacy. It is certainly an unfortunate incubus to the expenses connected with our calling that attempts to decrease the drink bill of our country by increasing the duty on alcohol, should apply equally to its use in medicine. It is probably a difficult problem in these days of fiery elixirs of liqueur-like character and medicated wines, which are noticeable for the small amount of medicine contained, to separate the alcohol of medicinal preparations from ordinary alcoholic drinks. Nevertheless the pharmacist is unduly pressed with the heavy burden which makes his tinctures and fluid extracts so dear. He cannot raise the price for dispensing prescriptions when tinctures, etc., are dearer from a higher spirit duty. The publican has two remedies in this country which greatly assist him over the difficulty. Either he reduces the quantity by supplying a smaller measurement for the money, or he dilutes the spirit with water so as to enable him still to supply the same volume as before. It is a curious fact that adulteration is practically winked at, if not invited, by the laws of the country regarding whiskey, etc. What would be thought of a druggist who boldly displayed a notice that all tinctures were diluted according to an Act. And yet, this is precisely how the publican is allowed to put himself outside the Adulteration Act by displaying such a notice regarding the dilution of his spiritous beverages.

The latest system of launching a patent medicine or proprietary article by distributing free shares in the undertaking to doctors and chemists who will interest themselves in its sale, cannot be recommended. The curious spectacle was recently witnessed of a number of medical men appearing at a court of justice and praying to be relieved of liability in a concern which had foundered in which they held shares given them by the proprietors. The judge was specially severe on them and made them pay their own costs, whilst it was quite evident that he would have liked to make them shareholders and liable for the amount of their shares.

The Pharmaceutical Congress at Chicago appears to have been carried out in all its details with considerable *eclat*. The sudden death of Professor Maisch before he could personally receive the Hanbury Medal of the Pharmaceutical Society was especially sad. Amongst the sheaf of resolutions which were presented and rapidly passed, the determination to ap-

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point a standing committee to advise on uniformity in pharmacopœial preparations was exceptionally happy. The general impression has long ago gained ground and resulted almost in the certainty that an International Pharmacopœia was not wanted. In every civilized country the work of preparing the pharmacopœia is every year falling more and more into the hands of pharmacists. What then is required is a little more agreement amongst pharmacists on pharmacopœial committees to aim at international uniformity as far as possible and wherever advisable. The preparation of decoctions, in one instance, being directed to be in the proportion of 1 in 10, and in another 1 in 8, is of little moment. But, for the safety of mankind, it is certainly only right that poisonous preparations should have some agreement throughout the world, so that the dosage (where so particularly important) should be identical.

#### Manitoba Pharmaceutical Association.

The following were the successful candidates at the recent semi-annual examination of the Manitoba Pharmaceutical Association:—W. K. Luxton, Frank Hayes, W. Bishop, W. G. Skead, and Alex. C. Bourbeau.

#### Practical Suggestions.

CHAS. E. SONNENBURG, PH. G.

"Cleanliness is next to godliness." This cannot be too firmly impressed upon all pharmacists. Cleanliness is what the reputation of the store depends on.

That section of the store generally neglected, yet which especially should not be, is the prescription department. Soiled mortars, ointment slabs, spatulas, funnels, etc., should not be left standing around until they are to be used again. Considerable time and labor can be spared by cleaning all apparatus thoroughly after being used.

Traces of ointment left on a slab or in a mortar will become rancid in a very short time from exposure to the atmosphere; the next ointment prepared, no matter how fresh it may be at the time, will, by contamination, become rancid very soon. There is nothing so irritating to abraded surfaces as decomposed ointments.

A large supply of clean bottles, dried and capped with a piece of paper, should be constantly at hand. Avoid the use of old bottles; new ones are much cheaper in the long run.

Scale pans, above all, should not be neglected. A very serious accident came under my observation not long since by negligence on the part of the clerk, in failing to thoroughly clean the scale pan after using it for arsenious acid. The next substance weighed was calomel for an infant. The traces of the arsenious acid left on the scale pan were carried with the calomel and administered to the

child. In a very short time it showed symptoms of arsenical poisoning. Had it not been for immediate assistance, it is quite possible it would have died. This ought to be sufficient to impress indelibly upon the minds of apothecaries to pay particular attention to their scales after weighing poisonous substances.

The prescription counter should be utilized for working purposes, and not serve as a depository for all sorts of utensils and bottles. The latter should be replaced on the shelf immediately after being used. Failing to comply with this rule has caused many serious mistakes.

Never proceed to weigh from a bottle without reading the label. Do not rely on the position the bottle generally occupies.

Never replace an oil or syrup bottle on the shelf without wiping around the neck of it with a piece of paper or a sponge. This will prevent the bottles from becoming streaked with the oil or syrup, which, in the course of time, renders them unsightly.

The place about the store these two articles should occupy, is a matter of no little importance. A convenient place in the cellar away from the furnace, or on a lower shelf in the store, are about the most desirable ones for them. The worst place for them is the upper shelf in the store. Yet you will find in most all stores one or more of the most delicate essential oils on the topmost shelf. Nothing about the drug store demands more attention than essential oils. Keep fixed and essential oils for dispensing purposes in small dark bottles well corked. It is far more satisfactory to observe this than to sell a bad article, perhaps detrimental to the health of the patient and also to the reputation of the apothecary.

In syrups, the disturbing agent is entirely different from that in oils and fats—syrups ferment; oils and fats oxidize. Unlike the oils and fats, some syrups can be restored to almost natural state by simply boiling.

Do not keep syrup of iodide of iron in a large bottle on the shelf in a remote dark corner where daylight is a surprise; in a very short time it will become dark brown from the oxidation of the iron and evolution of the iodine. This is facilitated by the oxidizing atmosphere admitted from time to time by frequent opening. The dark color can be restored by completely filling small bottles and exposing them directly to the sun's rays. This however, in all probability alters, to a certain extent, the nature of the solution of iodide of iron.

Syrup of hydriodic acid, on the contrary, should be kept in a dark, cool place, securely sealed in small bottles, preventing the admission of the atmosphere as much as possible. This syrup, by the action of the light and atmosphere, becomes dark from the evolution of iodine. By passing a stream of sulphuretted hydrogen gas through it, heating slightly to drive off the gas, and filtering to separate any precipitate of sulphur that might be formed, this syrup can be restored to its

original color, but this, in all probability, as in the foregoing syrup, alters its composition to a certain extent.

Elixirs, syrups, or any other liquid containing ferri phosphas, U. S. P., should also be protected from sunlight by being kept in dark bottles, the sunlight having the power to eliminate or reduce ferric salts existing in ferri phosphas, U. S. P., to ferrous.

Among the other most important preparations to be preserved in darkness are: Liquor hydrargyri et arsenii iodidi, hydrargyrum cum areta, hydrargyri iodidum rubrum, hydrargyri iodidum viride, in fact, all the preparations of mercury and carbolic acid.

Whenever you have occasion to filter oils, balsams or other tenaceous liquids through cotton, place a nicked cork in the neck of the funnel before inserting the cotton; this will allow free passage of the liquid through the cotton, the nicks in the cork preventing the cotton from being forced down the neck of the funnel and becoming so compact that the liquid cannot pass through it. In this way filtering can be carried on for several days without renewing the cotton.

Never keep more rubber goods on hand than you can dispose of in a reasonable time (about one or two months).

Morphine solutions should be made by dissolving the morphine in as small a quantity of the solvent as possible and then adding the remainder. By adding all the solvent at once to the morphine, a much longer time is necessary, and not all may dissolve.—*Druggists' Circular*.

#### Salol Suppositories.

The preparation of these articles gives some difficulty unless great care is used. M. Barnourin calls attention to the fact that salol, which melts at about 40°, remains liquid at a lower temperature, even down to 12° or 15° if kept quiet. Moreover, the true melting point of a mixture of salol and cacao butter (in which the salol is soluble) is much lower than that of either of its constituents. Consequently, a liquid mass, very hard to solidify, results when the ingredients are mixed. He, therefore, recommends that the butter shall be melted, and not allowed to rise far above its melting point, at which temperature the salol is mixed in. An easier method is to rub the butter and salol together into a paste in a mortar, and press the mass into the frozen moulds.—*Repertoire de Pharmacie*.

ANTISPASMIN.—This remedy is formed by the combination of one molecule of the sodium compound of narceine and three molecules of sodium salicylate. It contains 50 per cent. of narceine. It is a white, slightly hygroscopic powder easily soluble in water. Exposed to the air it deposits narcein, owing to the absorption of carbonic acid with the formation of sodium carbonate in which narcein is very insoluble.—*Journal de Pharmacie d'Amers*.

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### Japanese Camphor Trade.

The total purchases of foreign exporters reached 1713 tons, which is below the business of an average year. Prices ruled in favor of Japanese producers, the lowest having been 35 dols. per picul of 133½ lbs. in May, and the highest 63 dols. in December.

These figures represent common crude camphor, which, during the year, has been doctored and adulterated worse than ever, in spite of high values paid, and the strong protests of purchasers, some of whom now absolutely refuse to have dealings in camphor which has not drained in the warehouses during at least forty-eight hours.

The Formosa drug threatens Japan's monopoly, whenever work in the interior can be conducted regularly and free from the dangerous attacks of aborigines.

The camphor tree of Japan is a huge evergreen of singularly symmetrical proportions and not unlike a linden. Its blossom is a white flower, and it bears a red berry. Some of the trees are fully 15 feet in diameter, and are upwards of 300 years old.

In times gone by camphor was produced in Sumatra and Borneo, and in other parts of the East Indies, as well as in China; now, however, the crude camphor of commerce is a product of Japan and Formosa exclusively, the Formosa supplies having since the war between China and France been very small and uncertain until lately, when the industry was resumed by a German syndicate, upon concessions obtained from the Chinese Viceroy of the island, leading to increased exportation.

However, great difficulties remain to be surmounted before the trade can be depended on, for the trees are only found inland, where the inhabitants are aboriginal barbarians, who make matters most unpleasant for explorers.

The Formosa drug is inferior to the Japanese, the latter by reason of its great purity, pinkish color, and bold grain commanding in foreign countries higher prices, by some 2 per cent. or 3 per cent., in spite of its comparative abundance.

The annual export of Japan camphor averages about 5,000,000 lbs., of which about one quarter reaches the United States of America either direct or via Europe, the remainder being shipped to Europe, excepting a small quantity sent to India.

The districts in Japan famed for camphor trees are Kiushiu, Shikoku, Iga, Suruga, Ise, and Kishiu. The forests, owned by the people, are now almost denuded of timber, and very little will be left a few years hence. However, the Government forests are still very rich in camphor trees, and it has been estimated that this alone will maintain annually during the next twenty-five years, the full average supply of crude camphor.

Formerly very little care was bestowed upon the preservation and cultivation of this valuable timber. More recently,

however, not only the Government, but also the people have been giving to this most important question the attention it long ago deserved. Numerous young trees have now been planted, and their growth is being carefully tended. Consequently, although hitherto the youngest wood from which camphor was extracted was about seventy or eighty years old, it is expected that under present scientific management the trees will give equally good results after twenty-five or thirty years.

The roots contain a much larger proportion of camphor than the trees, 10 lbs. of crude camphor out of 200 lbs. of wood-chips being thought satisfactory. The Suruga timber yields a much smaller percentage.

In a village in Kochi (Tosa) there is a group of thirteen trees about 100 years old; it has been estimated that they will produce 40,000 lbs. of crude camphor, and are worth, as they now stand, 4,000 silver dollars.

It appears that the only process of extracting camphor from the wood among the mountains in this Empire, and the materials used, are of the roughest and most unscientific description. The wood-chips are boiled, the vapor being conducted into a receptacle containing several partitions, surrounded by cold water. In the sides of the partitions are apertures alternating contrarily, which, when open, cause the vapor to fill the divisions by a circuitous route, thus improving the grain of the camphor.

The crude article is brought to market, as a rule, in very rudely constructed wooden tubs.

To make it fit for shipment requires much work, diligence, and experience. Each tub is carefully sampled, vertically and diagonally, and the samples are tested by fire and sometimes by alcohol. If no solid adulterant is discovered, the condition of the drug is next inquired into the difficulty of this step being best explained by at once stating that this crude camphor contains a quantity of water, or oil and water, varying anywhere between 5 per cent. and 20 per cent.

This trouble overcome, the rest is comparatively easy, and consists in weighing, cutting, mixing, and packing for shipment, the packing being in tubs prepared on the premises, partly out of the original packages.

Of course the camphor cannot be packed in its present condition, much of it has to be drained and dried, and frequently a special parcel of "dry" must be bought, at a very high figure, for mixing with it. —(Consular Report.)—*Pharm. Jour.*

### The Cholera in England.

Eighteen deaths have occurred during the week, about which there seems no doubt as to Asiatic cholera being the cause, one being that of a cleaner at the House of Commons. At Grimsby 26 fresh cases have occurred during the week

commencing September 7th. At Cleethropes, on the 10th, there were 18 cases under treatment. None have been reported since. At Hull 24 cases have been reported up to yesterday, Sept. 14th. The general outlook is better. Owing to the coal strike, several tradesmen at Barnsley kept their windows protected by shutters. A chemist who adopted these precautions redeemed the injury done to trade to some extent by advertising a certain specific for cholera on the shutters. At a meeting of the City Commission of Sewers on the 12th ult., it was suggested that London be partitioned off to medical officers, who should be responsible for the treatment of choleraic complaints, and that chemists should dispense the prescriptions at the public expense. This was done in 1866. In a letter which has been going the round of the Press, Mr. Ernest Bell, M. A., gives several cases which point suspiciously to the eating of rabbits as a source of cholera, and raises alarm as to the disposal of inoculated rabbits after death.—*B. and C. Druggist.*

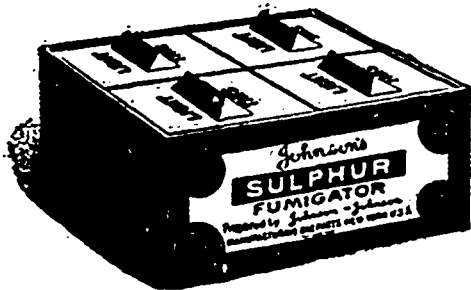
### Saccharin and Salicylic Acid.

These two bodies appear to be found together in several liquids, especially beers and wines, and Mr. Hairs has published the account of a research on the best method of detecting them when so combined. The well-known reaction of transforming the saccharin into salicylic acid by a potash fusion must, of course, be abandoned. So he employs the following process: The liquid is evaporated after being rendered alkaline, as usual, with sodium carbonate and washed sand added as it gets syrupy. The residue is exhausted with alcohol, and the liquid distilled. The residue is taken up with water, and this solution, acidulated with sulphuric acid, is extracted with ether, which is separated and distilled, with the addition of a few drops of solution of sodium bicarbonate. The residue is dissolved in hydrochloric acid, and a slight excess of bromine water is added. The mixture is strongly agitated in order to agglomerate the precipitate of bromosalicylic acid, and after a short time filtered. The filtrate is freed from excess of bromine by passing a current of air through it, and then agitated with ether. The ether is separated and evaporated with a few drops of sodium bicarbonate solution, and the characteristic sweet residue is left. By fusion with potash, the saccharin is converted into salicylic acid, and tested in the usual way. A mixture of 5 milligrammes of saccharin and 7.5 milligrammes of salicylic acid is easily detected, and no fear need be entertained as to the possibility of any salicylic acid escaping precipitation, and so giving the reaction accredited to the saccharin in the filtrate; for experiments showed that ferric chloride did not give the faintest reaction with the filtrate after precipitation with bromine.—*Jour. de Pharm. d'Anvers.*

Pseudoconhydrine is obtained from conium seed, and is an isomer of conhydrine.

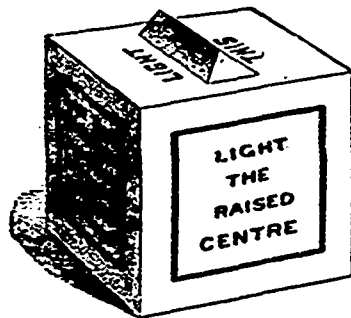
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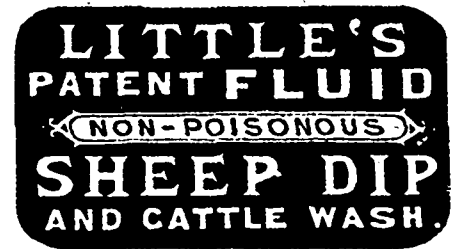


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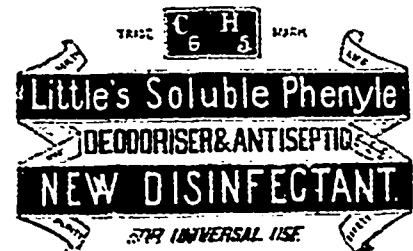
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### Inks for Records and Important Documents.

We find the following in the *Papier Zeitung* abstracted from the *Arbeiten aus dem Kaiserliche Gesundheitsamte*:

The normal inks required to be used as document inks by the Danish government belong to two classes. The first class is an iron and nut-gall ink, which must possess the following properties: It must contain not less than 4 gm. of iron to the liter, and it must stand exposure in an open vessel for not less than fourteen days without throwing down any sediment or becoming mouldy; it must resist light, air, water, and alcohol.

The test for the iron is made in any of the common ways; that for stability is made by exposing to the light and air 25 ccm. of the filtered ink in a medicine glass of 500 ccm. capacity, the top of which is covered with a paper capsule or other device for keeping out dust. Another portion is exposed in a similar manner, but without the capsule. The latter is to test for mould-resisting power.

An ink of this description is represented by the following formula:

Tannin, pure.....	23.4 gm.
Gallie acid, pure, crystallized.	7.7 gm.
Iron sulphate.....	30 gm.
Gumacacia.....	10 gm.
Carbolic acid.....	1 gm.
Hydrochloric acid, sufficient.	

The tannin can be replaced by the commercial tannic acid, but if the latter is used a sufficient quantity thereof must be taken to represent the given amount of absolute tannin. The amount of hydrochloric acid necessary is that which will represent 2.5 gm. of hydrogen chloride. The above figures are for 1 liter of ink. This ink is tested in the following manner: Writing or drawing is made with it on rag-paper, and the document is then exposed for three summer months to the direct action of sunlight. It is then washed with water and afterward with alcohol, and dried. The marks must remain black and legible.

The second class of inks are much inferior. All that is demanded of them is that after a document has been written for eight days it must not yield to either water or alcohol. It is not required to remain longer than three days without deposit, when submitted to the action of light and air, as described above for class one, but must not become mouldy in less than fourteen days.

Of the copying inks, it is required that they stand the tests for durability, etc., of class one; and, further, that they shall copy well after a document written with them is at least twenty-four hours old. It is further required that they shall not be sticky or gummy, even when not subjected to the copying process.

Lemons may be preserved by the very simple process of varnishing them with a solution of shellac in spirits of wine. Fresh lemon juice is thus obtainable at all seasons.

### Is it Possible to Produce Fluid Extracts of Such Strength that they can be Diluted with Proper Menstrua to Standard Tinctures.

JOSEPH W. ENGLAND, PH. G.

(Chief Druggist of the Philadelphia Hospital. Read at the meeting of the Georgia Pharm. Association.)

Examination of this query shows that its affirmative answer hinges upon the possibility of making fluid extracts which, properly diluted, yield products *identical* in the proportion and kinds of proximate principles found in tinctures made by direct exhaustion of the drug.

Can such fluid extracts be made?

If they can be, there is no need of making drug-tinctures, or tinctures from drugs; all that is necessary is a line of fluid extracts, and proper dilution, as wanted. If they cannot be made, then the practice should be condemned. The issue is a plain one; and the necessity of an accurate determination of the question demands the serious consideration of every thoughtful pharmacist.

If such fluid extracts can be made, it is obvious that certain conditions must exist. These are:

(1) That the physical conditions under which the drug is exhausted shall be the same in making the fluid extract as in making the drug tincture.

(2) That the menstruum employed in making the fluid extract and the drug tincture shall be identical.

(3) That in the making of the fluid extract the drug shall be exhausted of *all* the proximate principles present in the drug-tincture, and in as great a *relative* proportion.

(4) That the fluid extract shall not be altered in composition by heat, from concentration of percolate.

(5) That the fluid extract shall not precipitate proximate principles on storing, and have these removed before being used.

It is not a difficult matter to have the physical conditions of drug-exhaustion the same in making a fluid extract as in making a drug-tincture. If, however, there is a change or difference of menstruum, it is manifest there must be a change or difference in the proximate principles dissolved; but this will be referred to later.

If fluid extracts are to serve the double purpose of being used for making tinctures and also for their own virtues, it is essential that they contain *all* the soluble, proximate principles found in drug tinctures, and in as great relative proportions.

Wherever medicinal action obtains, the therapeutically-active principles of a vegetable drug are *soluble* principles, that is soluble in water or alcohol, or a mixture of the two. *All* the soluble proximate principles of a vegetable drug are not necessarily therapeutically active, but in the immature condition of the rational therapeutics of our times, as to the changes

produced by drug extractives in cellular contents in diseased conditions, who can say that a given extractive of a drug having medicinal activity is inert or without medicinal value? At present, clinical evidence decides, most largely, the therapeutical worth of a drug or its preparation.

The action of a drug or its representative is exerted upon the cellular contents of human tissue or tissues in which the drug acts, modifying one or all of three cellular activities, *i. e.*, (1) nutritive, (2) functional, and (3) reproductive. The functional activities of cells being the most obvious, they have been the most carefully noted by therapeutists, indeed the modern description of the therapeutical action of a drug is almost wholly limited to a description of the functional disturbances produced by it. When it comes to a description of the modifying influence of drugs or their representatives upon the nutritive and reproductive activities of cells in disease, modern therapy has little to say in comparison with the attention paid to functional changes. In therapeutical experiments, unless a change be obvious, it is too often assumed that there is no change, and yet the nutrition and reproduction of the cell may be notably affected and not be obvious. Further, the activities of nutrition and reproduction are vitally connected with the existence of the cell, and most probably influence its functions; nutrition, certainly, plays a most important part in affecting functions.

In addition to the necessity of fluid extracts containing *all* the proximate principles of drugs found in drug-tinctures (*if* they are to be used for making tinctures), it follows, of course, that they should be present in as great a *relative* proportion, so that the extract-tincture and the drug-tincture be equally representative of the drug in the amount of proximate principles present.

No isolated proximate principles, such as alkaloids, glucosides, etc., can represent the total therapeutical activities of a drug. They represent their individual, therapeutical actions *only*, and nothing more. The *total* activities of a drug can only be had from the drug itself, or a preparation of the drug representing *all* the therapeutically active proximate principles as they exist in the drug. Hence, for example, aconitine, hyoscyamine, digitalin, and quinine represent their individual activities only. They do not represent the *total* therapeutical activities of aconite root, hyoscyamus leaves, digitalis leaves, and cinchona bark, respectively, for these drugs possess *other* proximate principles which have a therapeutical worth over and above that of the principles mentioned. It does not follow, either, that tinctures and fluid extracts necessarily represent the *total* therapeutical activities of drugs. They represent only the therapeutically active principles soluble in the menstruum used to exhaust the drugs, due allowance being made, of course, for those precipitated and removed.

Whilst alkaloids, glucosides, etc., do not

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## An Awful Discovery!

That Somerville's **Mexican Fruit and Pepsin Chewing Gums** have the largest sales of any Chewing Gums in Canada.

Reason—QUALITY.

# WM. RADAM VINDICATED.

The Radam's Microbe Killer Case Settled by a Verdict for the Plaintiff.

[From the Mail and Express, New York, May 10, 1899.]

The case of William Radam, inventor of Radam's Microbe Killer, against Dr. Eccles and the "Druggists Circular and Chemical Gazette," was decided yesterday by a jury before Judge Andrews in the Supreme Court. Mr. Radam received a verdict and a complete vindication from the charges made by Dr. Eccles in an article published in the "Druggists' Circular" in September, 1889, attacking the microbe killer. The article stated that the microbe killer was compounded of poisonous drugs, and that any patient using it would die of cumulative poisoning, but the testimony showed that it is an antiseptic gas impregnated in water and contained no drugs.

"From the day of the publication of this article," said Mr. Radam to-day, "the 'Druggists' Circular' has attacked not only myself and the microbe killer, but has assailed other members of my company and even my patients. But the attempt to injure me and my company has failed and I have won my suit."

"I had twenty witnesses in court, who testified, under oath, that they had been cured by the microbe killer of many diseases after long and unsuccessful treatment by prominent physicians. I had thirty other witnesses ready to bring forward, and also had special cars at Philadelphia, Chicago and Baltimore ready to bring on more witnesses, but they were not required. Those who did go on the stand testified that they had been cured by the microbe killer of cancer, catarh, dyspepsia, inflammatory rheumatism, blood poisoning, asthma, consumption, pneumonia, diphtheria and many other complicated diseases.

"One of the charges made by Dr. Eccles in the 'Druggists' Circular' was that if the microbe killer were taken internally in large doses, it would be fatal, but I brought forward twenty witnesses who proved that it was not poison when taken internally even in the largest quantities. They swore that they had taken, some from 15 gallons to 160 gallons internally, in periods ranging from three months to three years. One patient, a lady, has taken 160 gallons of the microbe killer and was cured and left in perfect health. She had been bedridden nine months with inflammatory rheumatism, and had nearly lost her sight. Yet she was in court completely recovered. Her case was regarded as a miracle.

"I had among my witnesses many prominent people, including railroad officials, merchants and professional men.

Druggists who do not as yet carry our M. K. in stock will do well to order some from their Wholesaler or direct from us. Many sales are lost by people not seeing it in stock, hence they will not ask as freely for it.

Prices upon application.

WM. RADAM MICROBE KILLER CO. (LIMITED) TORONTO, ONT.

represent the total activities of drugs, their isolation, where decomposition-products are not formed as a result of assay, is, next to clinical experience, the only means we have of estimating the therapeutic worth of a drug-preparation, and it is of value when—and only when, the manufacturer of the preparation uses in its making, the proper quality of crude drug. If he uses an inferior drug, and raises the natural amount of alkaloid or glucoside to the proper standard by their extraneous addition, the preparation will not represent the special activities of the superior drug, but will represent those of the inferior drug plus those of the compound added.

This doctrine of the individuality of the drug as against the individuality of its so-called active principles, is no new doctrine. It has been repeatedly taught by Squibb and other authorities, but in their strong endeavors to secure greater uniformity in drug-preparations (a laudable ambition within certain limits), manufacturers have largely ignored its existence; claiming that the percentage of so-called active principle is, of necessity, an index of the total therapeutic value of the drug-preparation.

Apropos of this subject, Prof. Atfield gives, in a recent number of *The Pharmaceutical-Journal and Transactions* (July 15, 1893) some very interesting data had from an examination of certain samples of *ipecaecuanha*. After showing the results of his analysis, and stating that while such an alkaloid, as say quinine or morphine, has, at least, fixed and definite properties, the so-called "emetine" has not yet been obtained in sufficiently fixed and definite condition to enable us to say that it is one single substance, emetine, and nothing else. He further states that the acids and alkalis used by analysts in the isolation of the emetine attack it and render its yield inconstant, and says:

"It is to be hoped that any future authoritatively enjoined 'standardization' of *ipecaecuanha* founded on proportion of emetine will be therapeutically satisfactory, but such a position is not yet attained. Indeed, it would seem that *ipecaecuanha* root from which all 'emetine' is removed still has pharmacological value.\* The latter may or may not run parallel with percentage of emetine; meanwhile, our only guide is 'emetine,' estimated with all attainable accuracy."

So, it is a serious question whether tinctures made by diluting fluid extracts, even though the latter be assayed, are as good from a therapeutic standpoint as those made from the crude drug. Under certain conditions, it would seem as though some might be, but are they? As before said, alkaloids, glucosides, etc., do not represent the total therapeutical activities of drugs, and even if the relative strength of so-called active principle be the same in the "extract-tincture" as in the "drug-tincture," it indicates but one thing—the strength of the preparation in alkaloid or glucoside. It cannot indicate the amount of the other proximate principles of the drug. As in the case cited

above, these latter may or may not run parallel with the alkaloid or glucoside.

The extractive matter of a drug (apart from the so called active principles) has in many cases positive therapeutical worth, otherwise alcoholic or dilute alcoholic solutions of so called active principles should yield all the therapeutical results of drug tinctures; and we know they do not. That tincture only, then, is official, which contains all the therapeutically active constituents of the drugs—alkaloids, glucosides and other extractive matter included—soluble in the menstruum officially directed for the tincture.

In those cases where it is possible, in the making of a fluid extract, to exhaust a drug of all its soluble proximate principles without the deleterious use of heat, and without subsequent precipitation of proximate principles with their necessary removal by filtration, it would seem as though a tincture made by diluting such fluid extract should exhibit the same proximate constituents of the drug, in the same proportions, as the tincture made from the same sample of crude drug. But, it is evident that this can be the case, under such conditions only, when the menstruum used in the making of the fluid extract is the same as that used in the making of the drug-tincture. A change in alcoholic strength of menstruum used, always results in a change of the proportions, and in the same cases, of the kinds of proximate principles dissolved.

As an example of the influence changes in menstrua exert, a practice of the last Pharmacopœia may be cited. In the making of fluid extracts, the 1870 issue directed that the last portions of the percolate should be evaporated to a certain volume, and mixed with the reserved portion. This resulted in precipitation of proximate principles, owing to the fact that through evaporation of the last portions of the percolate the more volatile alcohol was most largely removed, leaving a weakly alcoholic liquid to mix with a stronger alcoholic one: hence precipitation occurred. In 1880, this practice was changed, and the last portions of the percolate are now evaporated to extractive, thereby eliminating both alcohol and water, and this is dissolved in the reserved percolate.

As a rule the more strongly alcoholic a menstruum used, the more rapid the exhaustion and the less extractive matter dissolved, while the more aqueous a menstruum, the slower the exhaustion and the greater the amount of extractive brought into solution. Hence, it is clear, that a tincture prepared from a fluid extract made with a certain menstruum, must, of necessity, be a different preparation in the proportion and, in some cases, of its kind of proximate principles, from a tincture of a crude drug made with a different menstruum.

It is a significant fact, that a number of important official tinctures are directed to be made with menstrua different in alcoholic strength from those ordered for corresponding fluid extracts; and this dif-

ference makes it impossible, in such cases, to obtain, by diluting the fluid extracts, the same therapeutical representatives of the drug as exhibited in the drug-tinctures.

The following table of certain official tinctures, showing the strengths of menstrua for the tinctures and corresponding fluid extracts is of interest:

Name of Drug.	Menstruum for Tincture.	Menstruum for Fluid Extract.
	(Parts.)	(Parts.)
<i>Digitalis</i> .....	A 1, W 1.	A 3, W 1.
<i>Belladonna</i> .....	A 1, W 1.	A . . .
<i>Hyoseyanus</i> .....	A 1, W 1.	A 3, W 1.
<i>Stramonium</i> .....	A 1, W 1.	A 3, W 1.
<i>Rhubarb</i> .....	A 1, W 1.	A 3, W 1.
<i>Hydrastia</i> .....	A 1, W 1.	A 3, W 1.
<i>Serpentaria</i> .....	A 1, W 1.	A 3, W 1.
<i>Cabel</i> .....	A 1, W 1.	A . . .
<i>Sanguinaria</i> .....	A 2, W 1.	A . . .
<i>Squill</i> .....	A 1, W 1.	A . . .
<i>Colehium Seel.</i> .....	A 1, W 1.	A 2, W 1.
<i>Bitter-Orange Peel</i> .....	A 1, W 1.	A 2, W 1.

A., Alcohol; W., Water.

From this table it will be seen that, in the cases mentioned, much more strongly alcoholic menstrua are used for fluid extracts, than are directed for corresponding tinctures; and this must result in a certain relative difference between the two preparations.

A good illustration of the changes attendant upon a difference of menstrua may be found in *digitalis* infusion. It is now accepted that the most important proximate constituents of *digitalis* leaves are Schmiedeberg's digitalin, with digitoxon, digitonin and digitalein. These may be grouped into two classes according to solubility. First, those soluble in alcohol and insoluble or almost insoluble in water; second, those soluble in both alcohol and water. Digitoxon and digitalin belong to the first group, and digitonin and digitalein belong to the second group. It will be seen that the tincture and fluid extract contain, most largely, digitoxon and digitalin with some digitonin and digitalein, whilst the infusion contains digitonin and digitalein with no digitoxon or digitalin. So, the making of infusion of *digitalis* from the tincture or fluid extract (as is sometimes done) should be condemned, as such a practice will not yield the same preparation, therapeutically, as that had by direct infusion of the leaf.

When we come to those drug-tinctures having the same menstrua as corresponding fluid extracts, we should naturally expect, if perfect exhaustion of the same sample of drug has been had in both cases, that the drug-tincture and the extract-tincture would be equally representative of the drug. Theoretically, this may be true, but, practically, it is a question as to whether it holds good as a rule. It may be the case in some few fluid extracts, but in others it certainly is not. Take *valerian* tincture for example: made by drug exhaustion it is one thing, made by extract-dilution from a fluid extract of the same sample of drug, it is quite another thing.

But, it may be urged, what evidence is there that drug-tinctures are therapeutically superior to extract-tinctures? The

\*Italicized by J. W. England.

# DRUGGISTS' CONFECTIONERY.

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As it is extremely probable these Tablets will have a very large sale, we beg to advise Chemists that we guarantee every pound of Tablets to contain equal to 24 ozs. of Compound Decoction of Sarsaparilla, besides the usual quantity of Sulphur, thus securing a really valuable blood purifier.

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In every variety of size and strength. Curiously Strong, and Multum in Parvo Mints give the utmost satisfaction. Medicated Lozenges of Pharmacopœia Strength.

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## ORIGINAL SUGAR WORM CAKES

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best of evidence in such a matter is clinical evidence. As before remarked, it is clinical experience which is accepted nowadays, to prove the therapeutical worth of a drug or its preparation (rational therapeutics has failed, as yet, to be accepted by practitioners unless confirmed by clinical evidence), and clinical experience confirms the view which practical pharmacy teaches—that a tincture made directly from a drug is stronger and better than a diluted fluid extract; no! it teaches more—it teaches that a properly made tincture is stronger relatively, than a fluid extract made from the same drug, for the reason that the maximum doses of fluid extracts are, in many cases, if not in all, relatively greater than those of tinctures! In other words, it requires more of the drug, relatively, as represented in a fluid extract, to produce its therapeutical effect, than it does of the drug as represented in a drug-tincture.

The following tables of official tinctures are of interest. The doses of fluid extracts are those given by four of the leading manufacturers of this country, for their products. The products stated to be assayed, are so marked. In some cases the maximum doses of these latter are less than those of the non-assayed products; in other cases they are more.

Examination of these tables shows marked differences between the relative maximum doses of fluid extracts, and those given by manufacturers for their products; and it should be noted that the manufacturers named fairly agree, in many cases, as to maximum doses.

If the contention that representative tinctures of drugs can be properly made by diluting fluid extracts be true, it logically follows that the relative dose of a given tincture and fluid extract should be identical. If the 10 per cent. tincture of drug A has the dose of sixty minims, the 100 per cent. fluid extract of drug A should have the dose of six minims, the difference between the official per cent. by weight for tinctures, and per cent. by volume for fluid extract making no material difference. The dose of cinchona tincture being 30 to 120 minims, the dose of the fluid extract (being about five times as strong) should be one-fifth or 6 to 24 minims; yet we find the dose as usually given is from 15 to 60 minims.

If dose is any criterion of drug-strength at all, it follows that the dose of tincture and fluid extract should be relatively the same, if the latter is to be diluted to make the former; otherwise there must be a certain difference between the proportion and the kinds of proximate prin-

ciples in the drug-tincture, as compared with those in the extract-tincture. Practically, it seems impossible, save in some few cases, to obtain fluid extracts which will have the same relative dose as the drug-tincture, for the actual dose of a fluid extract is not of necessity its relative dose compared with the dose of the tincture; and if this be so, the making of representative tinctures from fluid extracts is impossible. Manufacturers of fluid extracts are not to be blamed for this; it is a condition of drug-exhaustion over which they have no control. In the making of fluid extracts, manufacturers may exhaust a drug of all its soluble proximate principles, obtaining them in solution, but on storing the fluid extract for a time before selling, which is always done (or if it is not done, the fluid extract precipitates afterwards), the product invariably yields, through certain changes, precipitates of proximate principles more or less voluminous in character, and more or less valuable therapeutically. These are removed by decantation and filtration by the manufacturer before the product is sold.

It does not follow that fluid extracts so treated are necessarily inferior, they may be of excellent quality for fluid extracts, but they are not relatively as strong as

TABLE NO. 1.

NAME OF DRUG.	Percentage of Drug in U. S. P. Tincture (by weight)	Percentage of Drug in U. S. P. Fluid Extract (by volume.)	Increased Strength of Fluid Extract in Drug. (times.)	Dose of Tincture	Relative Dose of Fluid Extract.	Dose of Fluid Extract of Manufacturer A†	Dose of Fluid Extract of Manufacturer B.	Dose of Fluid Extract of Manufacturer C.	Dose of Fluid Extract of Manufacturer D.	Average of Manufacturer's Maximum Doses
Aconite Root...	40	100	2.5	1-3 Min. (2-6 drops.)	2/5-1 1/5 Min.	1/2 Min.	1/2-1 Min.	1-2 Min.	1-3 Min.†	2.0 Min.
Bellad'na leaves	15	100*	6.6	5-20 Min.	3/3 "	1-4 "	3-5 "	1-4 "	2-5 " +	4.5 "
Cannabis Indica	20	100	5.0	5-30 "	1-6 "	2-8 "	2-5 "	2-5 "	1-3 " +	5.25 "
Cinchona.....	20	100	5.0	30-120 "	6-24 "	15-60 "	15-60 "	30-75 "	60-120 " +	78.75 "
Colchicum Seed	15	100	6.6	10-60 "	11-9 "	2-8 "	5-70 "	5-70 "	2-10 " +	8.25 "
Conium.....	15	100	6.6	15-60 "	21-9 "	5-20 "	2-5 "	2-10 "	3-10 "	11.25 "
Digitalis.....	15	100	6.6	5-30 "	2-4 1/2 "	1-4 "	2-5 "	4-15 "	2-5 "	7.25 "
Gelsemium.....	15	100	6.6	5-20 "	3-3 "	1-6 "	5-10 "	4-15 "	1-3 "	8.5 "
Hyoscyamus.....	15	100	6.6	10-60 "	11-9 "	4-10 "	5-10 "	5-10 "	5-10 "	10.0 "
Nux Vomica.....	20	100	5.0	5-30 "	1-6 "	1-10 "	1-5 "	1-5 "	1-5 " +	6.25 "
Stramonium.....	10	100	10.0	10-30 "	1-3 "	1-4 "	1-3 "	1-3 "	1-3 " +	3.25 "
Verat'm Viride	50	100	2.0	1-4 "	1/2 "	1/2 "	2-4 "	2-5 "	2-4 "	3.75 "

\* Not Official.

† Assayed Fluid Extract.

TABLE NO. 2.

NAME OF DRUG.	Percentage of Drug in U. S. P. Tincture (by weight)	Percentage of Drug in U. S. P. Fluid Extract (by volume.)	Increased Strength of Fluid Extract in Drug. (times.)	Dose of Tincture.	Relative Dose of Fluid Extract.	Dose of Fluid Extract of Manufacturer A.	Dose of Fluid Extract of Manufacturer B.	Dose of Fluid Extract of Manufacturer C.	Dose of Fluid Extract of Manufacturer D.	Average of Manufacturer's Maximum Doses.
Capsicum.....	5	100	20.0	10-60 Min.	1/3 Min.	5-15 Min.	5-10 Min.	3-5 Min.	1-5 Min.	10.0 Min.
Cimicifuga.....	20	100	5.0	60-120 "	12-24 "	15-60 "	10-30 "	8-30 "	30-60 "	50.0 "
Cubeb.....	10	100	10.0	30-120 "	3-12 "	10-20 "	15-20 "	30-120 "	10-30 "	47.5 "
Gentian (Comp)	8	100*	12.5	60-240 "	4-15-19 1/5 "	10-40 "	30-60 "	60-120 "	30-60 "	70.0 "
Hops.....	20	100*	5.0	60-180 "	12-36 "	15-60 "	30-60 "	30-60 "	30-60 "	60.0 "
Hydrastis.....	20	100	5.0	30-60 "	6-12 "	10-30 "	10-30 "	15-60 "	10-30 "	37.5 "
Krameria.....	20	100	5.0	30-120 "	6-24 "	15-30 "	30-60 "	15-60 "	30-60 "	52.5 "
Lobelia.....	20	100	5.0	10-60 "	2-12 "	10-20 "	10-30 "	5-30 "	5-30 "	27.5 "
Matico.....	10	100	10.0	30-60 "	3-6 "	15-60 "	30-60 "	30-60 "	30-60 "	60.0 "
Quassia.....	10	100	10.0	30-60 "	3-6 "	5-15 "	30-60 "	30-60 "	30-60 "	48.75 "
Serpentaria.....	10	100	10.0	60-240 "	6-24 "	15-30 "	30-60 "	30-60 "	30-60 "	52.5 "
Sumbul.....	10	100*	10.0	15-60 "	1/6 "	10-30 "	15-60 "	15-60 "	15-60 "	52.5 "
Valerian.....	20	100	5.0	30-180 "	6-36 "	30-60 "	15-30 "	30-150 "	15-30 "	67.5 "
Zingiberis.....	20	100	5.0	30-120 "	6-24 "	5-20 "	5-40 "	5-30 "	5-40 "	32.5 "

\* Not Official.

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**THE DELICIOUS "CRAB APPLE BLOSSOM" PERFUME.**

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**RAYMOND & CO., 62 Carroll St., Brooklyn.**

**Wampole's Compound**  
**Syrup of Hypophosphites.**

**CHARACTERISTICS** Heavy, pleasant, bitter taste, and deposits a flocculent precipitate when left standing for some little time. This precipitate, aside from its being the most assimilable form of one of the important ingredients, will serve to render our preparation distinct from the many now offered for sale under the name of Syrup of Hypophosphites.

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This combination, so long and favorably known to Physicians and Pharmacists as one without equal in the treatment of Phthisis (Consumption) Bronchitis, Anemia and General Debility, as manufactured by us, and offered at our present list price, will be found to overcome an existing difficulty, as heretofore it has been impossible to procure it in quantities of more than one pint, and, the price of the preparation being very high, has placed it beyond the reach of many who really require a medicine of this kind.

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**Manufacturing Pharmacists,**

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**ANTINERVIN** is of especial service in cases of Influenza, Neuralgia, Asthma, Tuberculosis, Yellow Fever, Malaria, Migraine, Gout, Rheumatism in the Joints, Diphtheritis, and other typical Fevers.

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**"CHEMICUS,"**

Office of the Canadian Druggist, Strathroy, Canada.

drug-tinctures. It is clearly unreasonable to claim that the same tincture can be had by extract-dilution as by drug-exhaustion when more or less of the proximate principles of the drug have been removed from the fluid extract used for dilution.

It is a mistaken belief to suppose that a definite relation exists between the tincture and the fluid extract in the amount of drug represented; that, for example, a 100 per cent. fluid extract represents five times as much drug as a corresponding twenty per cent. tincture. A due allowance must be made for the removal, by the maker, of proximate principles precipitated by the fluid extracts, admitting the possibility, of the concentrating in fluid extracts of all the soluble principles of drugs. Hence, under the best conditions, the making of tinctures by diluting fluid extracts cannot yield products equally representative with drug-tinctures, unless perfect exhaustion of drugs be had in making the fluid extracts, and proper allowances be made for the character and amount of proximate principles separated from them; and this latter, from its variability, is out of the question.

It is in evidence, that fluid extracts and tinctures have distinct *therapeutic* fields; that they vary from each other in the relative proportions, and in some cases, of the kinds of proximate principles represented, and that fluid extracts diluted in the usual way cannot, of very necessity, be the same things, *therapeutically*, as tinctures made from superior qualities of drugs.

The practice of using fluid extracts, assayed or not, for making tinctures should be condemned, as inimical to the best interests of legitimate medicine and pharmacy. Only through the use of superior drugs and the making of his own tinctures according to official methods, can the pharmacist *know* the quality of his preparations. How can he vouch for the quality of a drug after it has been made up into a preparation if somebody else has made it?

Admitting that the manufacturer's preparation has been made from the proper quality of drug; after the drug has been exhausted of *all* its soluble proximate constituents; that the official menstruum has been used; that the employment of heat has not affected last portions of percolate, and that various amounts of precipitated proximate principles have not occurred in the fluid extract and been removed, what *knowledge* has the practical pharmacist of these facts? How can he vouch for the quality of a preparation, or rather the quality of its contained drug, unless he has made that preparation himself?

Further, granting that manufacturers, as a class, use the proper quality of drugs in making fluid extracts, is it true that they always follow the directions of the official standard in the procedures and menstrua directed! Or, is it true that

the official standard is adopted in part as regards percentage of drug, etc., and procedures and menstrua are used as suits the manufacturer? Manufacturers, generally, lay stress upon the fact that their fluid extracts are "strictly U.S.P.," but do they all follow the official standard in the procedures and menstrua directed for different fluid extracts? That is the question. Some are frank enough to admit that they use methods of their own devising for drug-exhaustion, and then evade the question of menstrua used, holding that their preparations represent those of the Pharmacopœia if the drug has been exhausted of all the proximate principles soluble in the particular menstruum *they* employ, despite the apparent intention of the Pharmacopœia to have a preparation of a certain alcoholic strength holding in solution *certain* proximate principles, some of which are soluble in that strength of menstruum *only*.

So, as regards the preparation of tinctures, the only right practice for the pharmacist lies in his buying the best quality of drugs, and making his own preparations. In this way there is safety—safety for the doctor who prescribes, the druggist who dispenses, and last, but most important of all, the patient who swallows the medicine.

### Crystallization in Quinine Syrups.

In a late issue of the *Chemist & Druggist*, P. W. Squire gives the following comments upon Easton's Syrup, in reply to a paper on that subject which appeared in a previous number of the same journal:

"I never carried out any detailed investigation on the subject, as a few simple experiments, made two years ago, pointed unmistakably to excess of acid as the disturbing factor. In this respect it is on the same line as the B.P.C. Syrupus Ferri et Quinine Hydrobromatum, which also has given rise to considerable discussion. In the correspondence initiated by Cripps, the only writer who comes near the mark is Green.

"The acid hydrobromate of quinine is soluble 1 in 6 of cold water, but, as pointed out in last 'Companion,' its solubility is greatly reduced in presence of free hydrobromic acid. With the full B.P.C. quantity of acid the syrup is very prone to crystallize; with half the quantity a slight separation takes place during very cold weather; with no acid at all the syrup is absolutely permanent, except for a slight precipitation of ferric hydrate. It is obvious, therefore, that the proportion of acid in the B.P.C. formula should be greatly reduced, say to a fourth of the quantity now prescribed.

With quinine and phosphoric acid, however, the case is rather more complicated. One point to be noticed is that the acid solutions are very apt to get into a *super-saturated* condition, in which crystallization may or may not take place, according to circumstances which I have never been

able to define. A solution which will apparently stand any amount of shaking and stirring with a glass rod will set to a tough solid mass on the introduction of a fragment of the acid phosphate, so that no solution can be considered permanent which does not stand this test. Another, and more important point, is that while any addition (up to a certain point) of free acid over and above the quantity actually necessary to dissolve the quinine, tends to diminish the solubility of the acid phosphate; past that point the action is reversed, and a larger excess of acid again carries the phosphate into solution. For instance, 1 gramme of quinine trihydrate may be dissolved in 0.6 c. c. of Acidum Phosphoricum Concentratum, and with water 10 c. c. forms a permanent solution, but with 1, 2, or 3 c. c. of acid the solution sets to a tough, solid mass, dissolving when water is added to 15, 24, and 30 c. c. respectively. With 4 or 5 c. c. of acid, crystallization is only partial, and with 6 c. c. the solution is again permanent.

If we come now to calculate the proportion of free acid to alkaloid in the B. P. C. formula, we find that the great bulk of the acid is introduced by the Syrupus Ferri Phosphatis. Supposing this to be strictly B. P., and the quantity used to be 19 oz. fluid, the total acid, holding in solution 95 grains of alkaloid and 152 grains of ferrous phosphate, is equivalent to about 950 grains  $H_3PO_4$ . Now, it is quite possible to retain the 152 grains of ferrous phosphate in permanent solution with 315 grains of  $H_3PO_4$ , which leaves 635 grains for 95 grains of anhydrous alkaloids, or 6.7:1—corresponding approximately to the 1 gramme of hydrated quinine in 6 c. c. of Acidum Phosphoricum Concentratum in the series of solubilities detailed above.

"The presence of sugar greatly lessens the solubility of the quinine phosphate in the acid liquid, but if the behavior of Easton's syrup follows the same lines as the above experiments, it may be expected (1) that a preparation made according to the B.P.C. formula and using the Syrupus Ferri Phosphatis of the B.P., may be quite permanent; (2) if the acidity be reduced (to a certain point) the tendency to crystallize will be increased; (3) a further reduction in the quantity of acid will result in a syrup which will keep well, and be free from the excessive acidity inseparable from the use of the B. P. C. formula."

SPIEGLER'S ALBUMEN REAGENT.—The following is an improved formula recommended by the originator himself: Mercury bichloride, 2.0; tartaric acid, 1.0; distilled water, 50.0; and glycerin, 5.0. To use it, the urine to be examined is acidified strongly with acetic acid and is filtered; some of it is poured carefully over the reagent so that the two do not perceptibly intermix, and if albumen be present the zone of contact will be white. —*Centr. bl. f. Klin. Med.*

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Specify PLANTEN'S CAPSULES on all orders.  
Send for Samples and Formula Lists. Sold by all Druggists.

Beware of Substitution of Inferior Brands.



### TO UNDERSTAND

THAT when a concern has a preparation that won't sell on its own merits, or if desiring to steal the fruit of another's sowing THEY IMITATE A SUCCESSFUL ONE.

A Toronto concern labels their mixture Pennyroyal Wafers, because if calling it anything else, it wouldn't sell without expenditure of considerable money to advertise it as others do, taking thus a dishonest advantage of what has been spent to create the increasing demand now had for the genuine and original Pennyroyal Wafers. They go still farther, and cut the price on their product to you, hoping thereby to secure your co-operation; failing to get results, they add as another inducement, "to give you a gold watch" too; a still further proof of its cheap worthlessness. Can you look your customers in the face and with honest conviction of doing right sell them a substitute for the genuine Pennyroyal Wafers made by us, and by whose advertising they have been brought to your store to buy? \$8.00 per dozen is the price for the genuine, and no bribes given, to encourage you to deceive the public. Your continued favors as in the past will greatly oblige,

Respectfully yours,

EUREKA CHEMICAL CO., Detroit, Mich.

### Somo New Remedies.

**PICOL.**—A new tar derivative, prepared by Ebermann and Raptshewski. It consists of a mixture of three parts of wood tar and 1 part of green soap slightly heated together, to which are added, little by little, with constant stirring, 3 parts of a 10-per-cent. aqueous solution of caustic potash. The mixture at first thickens up slightly, but is immediately transformed into a limpid liquid of dark brown color and of an agreeable tarry odor. It is miscible with water in all proportions, does not stain the clothing, nor does it have any caustic action. It is equally good as lysol as a disinfectant, and is cheaper, besides possessing a much more agreeable odor.

**BISMUTH BETA-NAPHTHOLATE.**—This substance is claimed by Hueppe to be the best intestinal antiseptic yet discovered, with the exception of bismuth tribromphenate (see below). It occludes 80 per cent. of bismuth oxide, and is said to be equally as efficient in choleraic diarrheas as in those of non-specific origin. Its virtues in this direction are vouched for by Neneki, Schubenko, and Blachstein. Dr. Heger presented specimens of the substance at a recent meeting of the Austrian Pharmaceutical Association. It appears as a brown, neutral, inodorous, non-astringent powder, insoluble in water but which is decomposed by the gastric fluid into beta-naphthol, which may be recovered from the urine, and into bismuth, which is eliminated in the stools. The dose is from 1 to 2 gm. in the course of twenty-four hours.

**BISMUTH TRIBROMPHENATE.**—At the last meeting of the Austrian Pharmaceutical Association Dr. Heger presented a yellow, neutral, inodorous, and tasteless powder, which he designated bismuth tribromphenate, and stated occluded 50 per cent of tribromphenol and 49.5 per cent bismuth oxide. He claimed it to be the most energetic remedy yet discovered against all intestinal sepses of bacterial origin, but especially against cholera, exceeding in this respect tribromphenol, which has hitherto held front rank as a bactericide. The new remedy seems to have no action on the mucosa of the intestinal tract. It is administered in doses of 50 cgm., repeated up to as high as twelve to fifteen times in the twenty-four hours.

**BERGAMIOL.**—This is the trivial name given by Schimmel to linalyle acetate, an ether recently introduced by him. It possesses an odor of bergamot, boils at 108° to 110° C., and is found existing free in the volatile oils of lavender, bergamot, and of orange (*petit grain*, derived from the unripe fruit). The acetate of geranyle, a similar and closely allied ether, boiling at from 111° to 115° C., is similarly found free in the essential oils of geranium, lavender, and calamus. Its odor is exceedingly pleasant, recalling that of lavender.

**PHEURETIN.**—A new phenol derivative whose exact chemical nature has not yet

been determined. It presents itself in the shape of minute white, glistening, silky needles, inodorous, and but slightly soluble in cold, and but a trifle more so in hot water. According to Jules Orient, pheuretine is readily soluble in the gastric juices, and is absorbed in doses of from 1 to 2 gm. in twenty-four hours. In heavier doses it reacts on the nervous system, producing abundant urinary secretion. It seems to be valuable in neuralgias, especially to migraine, in which it may be given in doses of from 50 cg. to 1 gm., repeated twice daily.

**SALICYLACETOL.**—The value of salol, and, later, of salophene, in rheumatic affections has found abundant recognition at the hands of the medical men of Europe and America, but the inconveniences attending the use of these substances, and especially the readiness with which they become almost unbearable to a patient to whom they are administered for any length of time, have caused chemists to seek some derivative which is free from drawbacks mentioned. Such, it is claimed, is salicylacetol, which is a product of the action of monochloroacetone upon sodium salicylate. In this substance as in salophene, the salicylic acid is combined with a non-toxic body. Salicylacetol crystallizes out of its hot alcoholic solution in long needles, fusible at 70° C., insoluble in cold, and but difficultly soluble in hot water, easily soluble in hot alcohol, ether, carbon disulphide, chloroform, and benzol. In cold alcohol it is almost insoluble. —*Nat. Druggist.*

### Native Opium in China.

An extremely interesting section of the last British consular report from Wenchow is devoted to native opium. It appears that in the province of Chekiang opium was first manufactured in the prefecture of Tai-chow, lying between Wenchow and Ningpo, whence the still common name of Tai-chow "paste." The poppy next began to be grown for opium in other prefectures as well, Wenchow, among them; but for a considerable time it was customary to hire Tai-chow men to collect and prepare the juice. Their monopoly of opium harvesting sent up their wages and checked cultivation until such time as Wenchow hands learnt the secret. Now-a-days the services of Tai-chow men are not required, but Tai-chow opium keeps its old pre-eminence. In 1879, owing to the appalling famine in Shansi, the Peking Government rigorously interdicted the cultivation of opium, on the ground that it interfered with the growth of foodstuffs. Farmers were afraid to run the risk of confiscation of their lands, the penalty of disobedience, and for the next few years the production of native opium was very slight. Gradually the officials whose proclamations had caused the panic were transferred to other posts, and the farmers, seeing that no new prohibitions were issued, took heart, and resumed more and more eagerly the culti-

vation of the poppy. Each year the amount produced increased, until in 1887 the supply became greater than the demand, and growers lost. Prices of native opium vary according as it is old or new, pure or adulterated. The "new" opium of this season when first put on the market sold at £42 10s. per picul of 133½ lbs. The dealers have hitherto been nearly all Fukien men. They purchase the crude opium in quantities however small, and boil it down there and then. The opium thus prepared is made up into balls of the weight of Patna (4 lbs. each), or is stored in casks holding about 66 lbs. each. It finds its sale chiefly in Fukien province, but a certain quantity is carried over to Formosa. Large quantities pay native duty, or likin, or both, but small quantities are easily smuggled. The likin authorities of Chekiang, observing that a great deal passed the frontier on which no duty was paid established special opium likin offices, but they are not very effective as a hindrance to smuggling. The difficulties in the way of opium growing are enumerated thus:—(1) The fields require twice the manure needed for dry grains or cotton; (2) wet and stormy weather when the heads are forming causes the capsules to droop and the roots to rot; (3) the juice must be collected the moment it is ready, yet it cannot be gathered in blazing sunshine or during storms; dull days, or days when a light rain is falling, are good, and best of all are moonlight nights; (4) laborers engaged to collect the juice require to be paid even if the weather prevents their employment. The method of collecting the juice in Wenchow is for one man to slice with a downward stroke the skin of each capsule, while several other men go round with bamboo scoops to scrape off the juice that thereupon exudes. No capsule is sliced twice on the same day, and the largest capsule will only bear six slicings. Moreover, the juice of the first two slicings is far better than that of the later ones. In fact, the wealthier farmers put aside the juice so collected, and, after drying it several days in the sun, store it away in the shells of goose eggs in some dark place for three years. It is said to be then superior to any Indian drug. Native opium, in any case, should never be used in its first year; at the very least a summer should be allowed to pass. The best land for poppy-growing is the slightly brackish, but even that is only good for two years. A mow (say 800 square yards) will yield upwards of 4 lbs. avoirdupois of juice if well manured and if the plants are carefully thinned out. A medium crop is 2 lbs. to 3 lbs., where the capsules have only taken four slicings. But it will sometimes happen that in spite of all care and on the best land the capsules yield no opium.—*Times.*

It is not how much a man sells nor the per cent. of profit which he makes, which determines his gains, but the relation which the expenses bear to the receipts.

### Automatic Extractor.

Under this name, W. D. Horne describes a simple and ingenious apparatus which mechanically delivers a gentle stream of water upon precipitated matter on a filter, and so ensures thorough washing without special attention. The washing is done regularly too, and there is no loss of time. The water supply is contained in a wide-mouthed bottle of 250 C.c. capacity, closed by a cork through which pass two glass tubes, extending just within the bottle. One tube tapers to a moderately fine point, projecting about 3 or 4 Cm. outwards, whilst the other is twice bent at right angles, and is sufficiently long to reach to the bottom of the bottle outside. When the bottle is inverted air enters by the long tube and bubbles up through the water, which then flows or drops from the shorter tube. The flow is best controlled by regulating the supply of air through the long tube. To convert the stream of water into an intermittent one, suspended below the bottle is a tube, somewhat like an Adams' fat extractor, containing a capillary siphon tube, the longer limb of which passes through a stopper at the bottom. It may readily be made by cutting the bottom off a test tube (15 Mm. in diameter and 15 Cm. long) and closing one end with a rubber stopper. The siphon tube should be made of glass tubing 3 Mm. in diameter, and have its limbs 15 Cm. and 3 Cm. long respectively. From the short limb hang a piece of rubber tubing, pass the longer one through a hole in the rubber stopper, so that the siphon is quite inside the test tube, then suspend the whole arrangement beneath the exit tube of the water bottle by means of a short piece of wire attached to the bend of the siphon tube. When the apparatus is in use, water will drop into the suspended tube until its surface rises above the bend of the siphon, and the liquid will then be discharged into the filter placed beneath. The lower end of the rubber tube should be cut diagonally to ensure complete emptying of the siphon at each delivery, and by also varying the length of this tube and regulating the dropping of water from the reservoir it is easy to so arrange that the right quantity is delivered into the filter each time, and that this shall pass completely through the filter before a further supply is delivered. Though a few supplementary washings by hand may be advisable, to get all the precipitate into the point of the filter, the mechanical washing is said to give results identical with the more tedious method.—*Journ. Am. Chem. Soc.*

### Synthetic Remedies.

Mr. E. H. Gane, in a paper read before the Chemists' Assistants Association gives the following facts concerning synthetic remedies:

The subject was treated on the physiological action and chemical constitution basis. The author showed how the action of the elements is modified by combina-

tion with other elements, and how even valency affects this factor. After general attention to inorganic compounds, he turned to those of an organic nature, pointing out that the fatty series provides us with anesthetics and hypnotics. He spoke generally of some of these substances, and how they are related to each other, what their action is, etc. Derivatives of the aromatic series were next referred to, these being in most cases antipyretic or antiseptics. With them the law applies that increase in molecular weights means increased activity, and the position of substituents in the molecule has also a determining influence upon the action. As it is well known, the phenols are powerfully antiseptic, but they are also toxic. Brunton and Cash therefore searched for a good phenol antiseptic without the toxic properties. This they discovered amongst the amido derivatives. Thus amido-phenol is a good antiseptic and is non-toxic.

By replacing a hydrogen atom in ordinary aniline by the acetic radical we get acetanilide, known as antifebrin, and its methyl derivative is well known as exalgine. By exchanging the methyl group for ethoxyl we get a very valuable antipyretic-phenacetin. Its properties depend on the ethoxyl group. After referring to antipyrin, Mr. Gane pointed out the advantage which would accrue by the combination of its best properties with those of phenacetin, and that he claimed to be exhibited in phenocoll, which is phenacetin with a hydrogen atom replaced by  $\text{NH}_2$ . Phenocoll is often in the market in an impure state, and should always be tested, Reuter's test for unchanged phenetidin is the most useful. It consists in gently fusing the sample with chloral hydrate. A rose-violet color is produced if phenetidin is present. In this fashion the author proceeded to speak of phenol, salol and betol, and then mentioned the isomerides of antipyrin, and lastly spoke of the antiseptics which are halogen derivatives, such as iodoform, iodol, aseptol, sozoidol, etc. In concluding, he pointed out how important to the pharmacist are researches in this direction, and said it would have been well if the Research Laboratory had kept to work of this kind instead of attempting to determine the constitution of the alkaloids.

### On the Introduction of a New Article.

LOUIS G. VOLKMAR.

How to advertise a patent medicine in the best manner has been a continual study with me for the last twenty-five years. During that time I have seen many ups and downs in this business. The nature and merits of an article are generally considered a secondary matter with patent medicine men, and neglect to give sufficient consideration to these points is the main cause of so many failures. Presuming that the article to be placed on the market has a little merit, you are giving a fair quantity for the money, and

and it has a great deal of originality (in name and appearance of package), my idea of introducing it would be as follows:

Commence in large cities, advertise in local papers, only using illustrated advertisements, and change illustrations frequently, but have something of a similarity in the style of ads. Short reading notices at bottom of column or in other prominent places are also good.

Let the drug trade know what you have to sell. A quarter of a dozen left on consignment in each and every drug store catches the early birds, and a druggist who has sold three packages of an article will usually keep it in stock thereafter. He will not lay in a supply of his own accord until he has had at least a dozen calls for the new preparation. The first call he will usually treat with contempt, say he has never heard of the article before, etc.

If the second call follows soon afterwards, before he has forgotten that he had a call for it once before, he will try and fill the want by getting a single package from the wholesale house—provided the customer is known to him, will wait or will leave a deposit to assure his return.

It is only after the druggist has had a great many calls and has a stock on hand that he will say a good word in favor of the article, previous to that he derides it and tries to substitute something of his own manufacture. This is what I call "Dead Advertising," and a great many medicine men have drained out all their cash during this period. The consignment plan obviates this and places the article at once in the reach of all prospective customers, and the full benefit will be received from the advertisements.

Country trade I would handle differently. After the business is in running order in the large cities, then branch out into the surrounding cities and towns. Here you will not have to leave the goods on consignment. Offer to place the dealer's name under the advertisement, and in nine cases out of ten you make a sale on thirty or sixty days' time. Or let the salesman take a signed order making the account chargeable to the newspaper, and the amount purchased on the first bill will usually pay for the advertisement for a whole year.

After the preparation is firmly placed on the market so all the wholesale dealers carry a stock, then go for the large weeklies and monthlies, and if you have plenty of capital you must make money.—*Printer's Ink.*

THE Farbenfabriken of Bayer & Co. have just introduced a new remedy, which they state (confidentially) to be kresotinsaeureacetylamidophenylester. Administered to a Konstantinopolitanischdudelsacpfeifer, it immediately caused anthropomorphphrenonysmicaliation with refrigeration of the peripheric centers. The last seen of the patient he was playing on a tronduemphilipinotrasiamemento, which, as everybody knows, is more difficult to learn than a dudelsac.—*E.c.*

## CANADIAN DRUGGIST.

WM. J. OYAS, EDITOR AND PUBLISHER.

OCTOBER 15th, 1893.

Prof. J. M. Maisch, Ph. D.

On Sept. 10th, John Michael Maisch died at his home in Philadelphia, from cancer of the throat, from which he had been suffering for some months. Born in Hanau, Germany, January 30th, 1831, he remained in his native land until 1849, when he went to the United States and entered into the drug business in Baltimore, Md., subsequently acting as clerk in Washington, D. C., and in Philadelphia. In 1861 he was appointed Professor of Materia Medica and Pharmacy at New York College of Pharmacy. In 1863, after the discontinuance of the United States Army Laboratory, which he had established and managed with signal success, he opened a drug store in Philadelphia, which he disposed of in 1871, thereafter devoting his whole time to editorial labors and scientific pursuits, having in that year assumed the editorial control of the *American Journal of Pharmacy*, which he held until the time of his decease. In the death of Prof. Maisch the pharmaceutical world loses one of its most devoted and accomplished members, and the American Pharmaceutical Association one of its most energetic and valuable workers, whose place it will be hard to fill.

## The International Pharmaceutical Congress.

The following resolutions were adopted at the recent meeting of this Congress in Chicago:—

"The Seventh International Pharmaceutical Congress hereby reaffirms the opinion expressed by preceding International Pharmaceutical Congresses, that the Decimal system of measures, based upon the Meter, should be the only system used in the Pharmacopœias, and, further, this Congress believes that Fluid measures should be employed in the measurement of liquid. This Congress also believes that the scale of the Centigrade thermometer should be the only one employed in stating temperatures."

"Resolved, that in the judgment of this Congress the educated pharmacist is a natural and proper expert for measures of public health, not only in the prevention of adulterations, but in the inspection of water supplies, the enforcement of good *strawage*, etc. The pharmacist is, by virtue of his profession, the common chemist of the common people."

"Resolved, that no person should be admitted as an apprentice in Pharmacy unless he shall have given evidence, by satisfactorily passing a preliminary examination, that he possesses a general education sufficient for the purpose and as advanced as the conditions of the practice of Pharmacy in each country may permit,

and his term of apprenticeship in Pharmacy should in no case be counted so far as it may antedate such evidence of sufficient preliminary education. The compulsory period of apprenticeship should not be less than four years, including the time devoted by the apprentice to regular attendance upon the courses of instruction in a College or School of Pharmacy.

Recognizing the inadequacy of examinations as a means of determining the qualifications of persons seeking the important privilege of dispensing and compounding medicines, this Congress approves of the establishment of a compulsory curriculum of pharmaceutical education, and holds that no person should be regarded as a qualified pharmacist who has not pursued to completion a systematic course of instruction in the various branches of pharmaceutical science, and delegates in this Congress are requested to lend their aid toward securing the recognition of a principle of such fundamental importance to Pharmacy.

"Resolved, that this Congress appoint a committee of three, of which the President shall be chairman, the duty of this committee to be to take the necessary steps for the appointment of an International Pharmacopœial Commission to compile, publish and distribute an International Pharmacopœia of Patent Remedies. The International Pharmacopœial Commission shall consist of one member from each country represented at this Congress, and from other countries as the committee of three may decide, the members of the Commission to be selected by the Pharmacopœial Committees of the various countries, or to be otherwise chosen, if necessary. The Committee of three shall be a permanent committee, and it shall be its duty to urge and expedite the work in every proper way; and in the event of death or resignation of any member of this Committee of three, the vacancy shall be filled by the other members."

"Resolved, that this Congress accepts with thanks the proffer by the American Pharmaceutical Association of the sum of \$1,000 to help defray the expense of compiling, publishing and distributing an International Pharmacopœia of Potent Remedies."

## A New Illustrated Dictionary of Medicine, Biology, and Collateral Sciences.

Dr. George M. Gould, already well-known as the editor of two small Medical Dictionaries, has now about ready an unabridged, exhaustive work of the same class, upon which he and a corps of able assistants have been uninterruptedly engaged for several years.

The feature that will attract immediate attention is a large number of fine illustrations that have been included, many of which as, for instance, the series of over fifty of the bacteria—have been drawn and engraved especially for the work.

Every scientific-minded physician will also be glad to have defined several thousand commonly used terms in biology, chemistry, etc.

The chief point, however, upon which the editor relies for the success of his book is the unique epitomization of old and new knowledge. It contains a far larger number of words than any other one-volume medical lexicon. It is a new book, not a revision of the older volume. The pronunciation, etymology, definition, illustration, and logical groupings of each word are given. There has never been such a gathering of new words from the living literature of the day. It is especially rich in tabular matter a method of presentation that focuses, as it were, a whole subject so as to be understood at a glance.

The latest method of spelling certain terms, as adopted by various scientific bodies and authorities, have all been included, as well as those words classed as obsolete by some editors, but still used largely in the literature of to-day, and the omission of which in any work aiming to be complete would make it unreliable as an exhaustive work of reference.

The publishers announce that, notwithstanding the large outlay necessary to its production on such an elaborate plan, the price will be no higher than that of the usual medical text-book.

The publishers are Messrs. P. Blakiston, Son & Co., of Philadelphia.

## Answers to Queries.

W. H., Kingston.—The following is given as the formula:

## ROCHES' EMBOCATION.

Olive oil .....	20 parts
Oil of cloves .....	10 parts
Oil of amber .....	10 parts

Mix.

## OIL OF PETRE

Is the name given to an old English recipe which is as follows:

Oil of turpentine .....	1 quart
Barlados tar .....	1 lb.
Oil of Rosemary .....	1 oz.
Oil of origanum .....	1 oz.

M.

"STUDENT," Winnipeg, Man.—The following table will give you the information asked for:

## WEIGHT EQUIVALENTS.

To convert grains into grammes multiply by.....	0.065
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To convert ounces (avoir.) into grammes multiply by.....	28.4
To convert pounds (avoir.) into grammes multiply by.....	453.6

## MEASURE EQUIVALENTS.

To convert cubic centimeters into grains multiply by.....	15.5
To convert cubic centimeters into drachms multiply by.....	0.26
To convert cubic centimeters into oz. (avoir.) multiply by.....	0.066
To convert pints into cubic centimeters multiply by.....	473



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The demand comes direct from our customers, and not the results of urging it. — **WEEKS & POTTER**, Boston.  
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We never sold so much of any Toilet Article in so short a time. — **CASSINO & PATRU**, Boston.  
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multiply by ..... 35.3  
To convert gallons into liters multi-  
ply by ..... 3.8

### Don't Worry.

"A man's business life is too short," says an exchange, "to waste any portion of his time in fretting over any trifling matter of business. If a man has a mind to be annoyed by every little mishap that occurs in his establishment he can keep himself in constant hot water by worrying. There is neither sense nor reason in flying into a fit of passion because a careless clerk breaks a stone fixture, leaves a faucet running, smashes a jug, or commits some other trifling blunder. Constant fretting on the part of employers makes clerks nervous, and, in this condition of mind and body, they are far more apt to make mistakes than they otherwise would be. Business worry wears a man out very rapidly, and when the habit of fussing is once acquired, it is extremely difficult to rid oneself of it. There are men who work themselves into a perfect fit of passion over little insignificant matters not worthy of serious thought and consideration. There are other men who fret because they fear something unpleasant is going to happen their business career; they may have obligations to meet, a note due at the bank, while their customers cannot be depended upon to help them out of a tight corner, but there is no earthly use in borrowing trouble until trouble comes, and then every enterprising man should manfully meet it. There is a great difference in merchants. Some wear themselves out before middle life, become irritable, morose, snappish and disagreeable in the conduct of a very small business, while other men with vast interests and great responsibilities, who are calm and well poised, patient and nery, live to a good old age without borrowing trouble or shattering their nerves over trifles."

### The Scope of an International Pharmacopœia.

DR. G. VULPIUS, OF HEIDELBERG, GERMANY.

In view of the great difference of principles which determine the scope of each pharmacopœia, it is possibly advisable for interested parties to agree on a few principles, which should determine the procedure in selecting the articles to be inserted into the pharmacopœia if the work should fully answer its purpose. These principles may be expressed in a few words, as follows:

1. Primarily is to be regarded that all such medicaments must be accepted which the physicians of the country, through their colleagues who have been elected or nominated for this purpose, designate as important, and which are often prescribed by them.

2. Furthermore, as it is a well-known fact that quite a number of physicians

continue to use, with preference, such medicaments as were at the time of their studies prescribed and recommended by the clinical teachers of the schools, therefore such so-called older remedies should not be dropped from the pharmacopœia as long as it has been shown by statistics that they are used in at least one-tenth of the pharmacies, although they have not been recommended for retention by the representatives of the physicians.

3. Newly introduced remedies, which however are not officially recommended by the physicians, should nevertheless be inserted into the pharmacopœia as soon as they are used in at least one-tenth of the pharmacies for a longer period than one year.

#### REASONS.

The principal object of a pharmacopœia is, without doubt, to give assurance to the physician and the patient that all such remedies as are called for regularly under certain names within the boundaries of authority of the said pharmacopœia always possess the same constitution and quality, should the same be recognized by the reigning doctrine or not.

On the other hand, the first object of a pharmacopœia cannot be give to pharmacotherapy a certain direction in conformity with the medical views just prevalent at the time of its appearance. As, in the nature of things, these latter ideas will be brought into prominence by the representatives of medicine attached to the pharmacopœia commissions, there is no danger that the older remedies will be dropped from the pharmacopœia too soon, and consequently there will no longer be a guarantee as to their quality for the large number of practitioners who are still using these medicaments.

Furthermore, quite a number of physicians, leaders and representatives of the reigning school, are averse to the use of certain newly introduced remedies, without, however, being able to prevent their introduction in relatively large circles.

In both cases it seems desirable, in interest of the cause, that the decisions, based on prevalent scientific theories, as to the retention or elimination of remedies should be counterbalanced by considerations of the actual extent of use of each medicament. The groundwork for such considerations can only be gained by statistical notes, and these only by inquiries in the pharmacies as to the use of each remedy. Presented at the International Pharmaceutical Congress, Chicago.

### Dragon's Blood.

In the year 1569, Monardes published his *Historia Medicinal*, &c., and of this the famous Belgian botanist Clusius published a Latin version, with notes, in 1574. The original editions are not before us as we write, but it is desirable to note the dates at which they were published. In the French edition of Monardes, the *Historiæ Simples Medicinæ apportées de l'Amérique* (1619), lib. v., cap.

xxiv., we find it stated, as it probably is in the first edition to which we have referred, that the Bishop of Carthage had recently brought home the fruit of the tree, whence exudes the tear (larso) which is commonly called dragon's blood. Now, this fruit, our author goes on to say, is every way admirable, for as soon as the rind is removed, quite suddenly a little dragon appears, elaborated with such natural artifice, that it appears as if sculptured in marble by some skilled workman. It has a rather long neck, the throat open, the backbone beset with spines, the tail long, and the feet well armed with nails. "Carthage," in Peru, is said to be the source whence the dragon's blood is derived, and its properties are described as highly astringent, and the drug is used in those cases where a medicament of that nature is required. Clusius, in a note, proceeds to describe what we now know as *Dracena Draco*, of which a plant was raised from seed at Brussels. He describes the fruit, but he is careful to add that there was no dragon in it. Gerard, in his *Herbal* (1597), p. 1339, under the head of *Draco arbor*, the Dragon Tree, unblushing copyist that he is, gives the same figures, and a good description of the *Dracena Draco*. The external appearance of the fruit is well described, and then it is further stated that there "is to be seen, as Monardus and divers others report, the forme of a dragon, having a long necke or gaping throat; the ridge or backe armed with sharpe prickles like the porpentine; it hath also a long taile, and: fower feet, very easie to be discerned; the figure of it we have set forth unto you according to the greatnes thereof, because our words and meanings may be the better understood." Gerard then, as Clusius had done before him, assigned the fruit with the dragon in it to what we now know as *Dracena Draco*, although, as we have seen, Clusius is careful to say that he could not find any dragon in it. The *Dracena* also offers a difficulty, inasmuch as it is a native of Teneriffe and Madeira. But Gerard is equal to the emergency, for he goes on to say of his Dragon Tree that "this tree groweth in an Iland which the Portugales call Madera, and in one of the Canary Islands called Insula Portus Sancti, and as it seemeth it was first brought out of Affrike, although some are of a contrary opinion and say, that it was first brought from Carthagena in Nova Orbe by the bishop of the same province." In any case the 16th century botanists attributed the "dragon's blood" to the vegetable kingdom, but their far-off predecessors were less metaphorical in their notions. Pliny, for instance, in his "Natural History" book xxxiii., cap. 40, says dragon's blood (which was used as a "vehicle" or as a pigment by artists) is a thick matter issuing from the dragon when crushed beneath the weight of the dying elephant. Elsewhere Pliny (book xxxv., cap. 32), speaks of India sending to Rome the slime of her rivers, and "the corrupt blood of her dragons," and this

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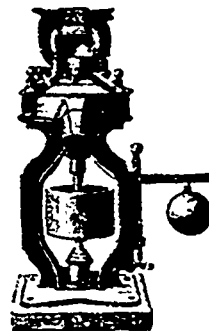


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fact serves him as an illustration of a tendency which is apparent now as then. "Everything, in fact, was superior at a time when the resources of art were so much fewer than they now are. Yes, so it is; and the reason is . . . that it is the material, and not the efforts of genius, that is now the object of research." (Bohn's edition, vol. vi., p. 216.) The question to be solved is, what was the fruit mentioned by Monardes, and which contained so striking a verisimilitude to a dragon? A conventional dragon it must have been, like the effigy at Temple Bar, perhaps, for no one quite knows what a dragon was. What is known nowadays as dragon's blood is a resinous exudation used for varnish, and derived in some cases from a palm, *Calamus draco*, in others from a dracena. Now, the palm has a scrambling stem thickly beset with spines, and its fruits are covered with hard scales turned down, and dragon-like as dragons are supposed to go, but the calamus comes from Sumatra and Borneo, and not from Carthage. In spite of its name, it is rather difficult to see any resemblance to a dragon in a dracena. Perhaps the bayonet-like leaves may have suggested the idea. *Gardener's Chronicle*.

### The Position of the Pharmacist.\*

DR. MERVEILLE.

Too frequently pharmacists imagine that they are scorned and unjustly accused by the medical profession, but there is really nothing in this fancy, in point of fact, for such conduct would be both profoundly absurd and absolutely undeserved. For my part, I respect and honour the profession of pharmacy as much as that of medicine so long as both are practised with a proper sense of duty. If this condition be not fulfilled one may well permit one's self, without hesitation, to despise and oppose the unworthy pharmacist as much as the prevaricating doctor. As to the reason I profess these sentiments of esteem towards the pharmacist it is very simple, though it may seem somewhat astonishing, at first sight, to certain of my readers. It is because I am attached to my profession and recognize in the medical practitioner a man whose energies are largely devoted to the service of his fellow creatures, and render him accordingly worthy of respect.

Now the pharmacist is entitled to the same esteem, for he participates in the public labours of the medical man, and is his valued and indispensable fellow-worker. The doctor who is the best informed, most capable of solving a diagnostic difficulty, and most expert as a therapist, cannot carry on his work properly without the joint action of the pharmacist. All the good that the former may be able to do, if he is seconded by a conscientious pharmacist, will be rendered impossible if the individual entrusted with the dispensing of his prescriptions should not be

scrupulously conscientious in the performance of his work. It is, with the assistance of the pharmacist that the doctor neutralises the toxic symptoms in cases of poisoning, saves the life of a patient attacked with hemorrhage, and snatches from death those who are on the point of expiring. But it must not be forgotten that, if the pharmacist has not a very clear idea of his duty, the poison, hemorrhage, and death may be able to accomplish their work and he will be responsible for it.

The pharmacist who does properly understand his work has the right to be proud of his profession. It might also be said that his position is more meritorious than that of the medical man, for it is more unpretending and less is known about his work. The practitioner who contends with disease at the bedside of the patient, and follows its progress step by step, is yet conscious of a grim satisfaction in the struggle, and enjoys his triumph when successful. The pharmacist, his fellow-worker, who places in his hands the weapons of his choice, is a stranger to these pleasures, however. It is not on the part of the public but in his own conscience that he finds the cheering testimony that he has done his duty.

It is seen then that the pharmacist is not, in my opinion, simply a dealer in drugs, nor only a more or less expert chemist. The impression that I have formed of his position in society is that it is a much loftier one. But then the question arises, do pharmacists comprehend this position themselves? We leave out of account the black sheep that exist in all professions; but do the pharmacists of reputed honesty of purpose understand the great responsibility which devolves upon them? Does each one scrupulously fulfil his obligations, and these in their entirety? We must look to facts for a reply.

The pharmacist is, as has already been said, the fellow worker of the doctor in the noble work of the alleviation of disease. It is upon this idea that the whole professional life of the pharmacist should be based. It is this idea which should impel him to contribute, by the quality of his medicinal preparations, towards securing the effects desired by the medical man, without ever wishing to substitute himself for the latter or disparaging his work. It is this also which calls upon him to assure himself, by analysis, of the strength of his preparations, and endeavor to render medicines as readily assimilable as possible, whilst exercising care to scrupulously perform what the doctor directs and according to his wishes.

I will not stop to consider here the illegal practice of medicine by pharmacists, which is always an absurdity and often not far short of criminal. Nor is it necessary to speak farther of the necessity of analysis and the desirability of always having the finest quality of drugs, for these are truths which no one can contest. I would prefer rather to come down to the inner life of pharmacy and show what

minutiae and doubts must be considered by the pharmacist in the performance of his duties. . . . There is a widely extended practice in the world of pharmacy, which consists in making all kinds of preparations from fluid extracts. It is unnecessary to consider whether these products are worthy of commendation or not, for it is known perfectly well that some of them are good whilst others are simply detestable. But, from an ethical standpoint, the matter is as clear as possible—the pharmacist should make use of these extracts when the doctor prescribes them, and then only. In acting otherwise, he exposes both patient and doctor to injury, and departs entirely from his proper position. When the doctor prescribes as follows:—"Take one gramme of digitalis leaves and make two hundred grammes of infusion," the pharmacist should not take a pretended equivalent portion of fluid extract and simply dilute it with distilled water. Putting all questions of science on one side, he ought simply to do exactly what is ordered, and should never deviate from the terms of the prescription without referring to the writer of it. To act otherwise is to renounce the just consideration which ought to attach to the name of pharmacist. . . . To sum up, the pharmacist is not simply a dealer in drugs or a chemist experimenting upon the human organism; he is the associate of the medical practitioner in the great duty of looking after the public health. Both law and common-sense have clearly defined his sphere of action, the bounds of which he should never overstep. Let him scrupulously observe the law, dispense medical prescriptions in a careful manner, show everywhere and always a disinterested, unpretending, and even unrecognized sense of duty, and he will be able to convince himself, at least, that he leads a life of utility in the service of his fellow-creatures.

### A Poison Train.

The Victorian Australia Ry. Department are about making and experiment in running a "poison" train. It is to consist of a waggon 35 feet in length, which will hold a large boiler, and twelve ordinary waggons, each carrying 1,200 gallons of water. The water is to be impregnated with arsenic, and the solution is to be poured on the permanent way as the train runs, the hope being that thereby all vegetation on the road will be destroyed. In the past the clearing away of weeds and grass has been done by permanent way-men, but it is thought that the poison train will be cheaper. The estimated cost of the experimental train is said to be \$6,000.

SULPHURE OINTMENT. — Under this name Carles (Rep. de Pharm.) employs a mixture of one part concentrated sulphuric acid and three of hog's lard as a counter-irritant in place of simpisms, thapsia plaster, and croton-oil mixtures. The ointment can be washed off with water.

\* *Gazette medicale de Lyon*, through the *Repertoire de pharmacie*.—(*Phar. Journal*.)

# Rubber Goods

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RIGHT PRICES.

Our line of ENEMAS, TUBING, FOUNTAINS, ATOMIZERS, is very complete and prices right. Buyers can effect great saving by placing orders with us.

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Pectoria

Silver Cream

Allan's Cough Candies

½ gross Boxes at \$1.00 per Box.

Soap Bark

In 5c. Packages, ½ gross Box, \$1.00 per Box.

Full lines of Sundries.

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ESTABLISHED 1858.

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WATERLOO, - ONTARIO.

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PURE SPIRITS,

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"OLD TIMES" & "WHITE WHEAT."

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A SPECIALTY.

DRUGGISTS about to remodel their stores or fit up new buildings, will find it to their advantage to write us for designs and estimates. We have something new and original for each customer.

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SOLE PROPRIETORS OF THE FOLLOWING :

- Dow's Sturgeon Oil Liniment.
- Gray's Anodyne Liniment.
- Dr. Wilson's Antibilious Pills.
- Dr. Wilson's Persian Salve.
- Dr. Wilson's Ith Ointment.
- Dr. Wilson's Sarsaparillian Elixir.
- French Magnetic Oil.
- Dr. Wilson's Worm Lozenges.
- Dr. Wilson's Pulmonary Cherry Balsam.
- Dr. Wilson's Cramp and Pain Believer.
- Dr. Wilson's Dead Shot Worm Sticks.
- Nurse Wilson's Soothing Syrup.
- Clark's Derby Condition Powders.
- Wright's Vermifuge.
- Robert's Eye Water.
- Hurl's Hair Vitalizer.
- Dr. Howard's Quinine Wine.
- Dr. Howard's Beef, Wine and Iron.
- Stroz's Summer Cure.
- Dr. Howard's Cod Liver Oil Emulsion.

# Druggists.

# TEXAS BALSAM

Is the only Rapid and Certain Healer for  
Scratches, Cuts, Galls, Sore Shoulders  
and all Wounds on

**HORSES and CATTLE.**

Texas Balsam is now extensively advertised in Local Newspapers and Periodicals, and has an assured future as a Staple Remedy.

It will pay you to keep it in stock.

PRICE :- Sample by mail, 25 cents.  
TO TRADE :- \$1.50 per doz., express prepaid  
TERMS :- Cash with order.

Orders from the Trade solicited and receive prompt attention.

**C. F. SEGSWORTH,**

6 Wellington-St. East, - TORONTO, ONT.

# Toronto Retail Druggists' Association.

Meets second Friday in each month in  
O. C. P. building, Gerard-st. East.

A cordial invitation is extended to every  
Druggist to be present at any of the meetings.

**R. W. CAMPBELL,**

398 Spadina Ave.,  
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Avoid the heat and dust by traveling on the Floating Palaces of the Detroit & Cleveland Steam Navigation Company. Two new steel passenger steamers have just been built for this Upper Lake route, costing \$300,000 each, and are guaranteed to be the grandest, largest, safest and fastest steamers on the Lakes; speed 20 miles per hour, running time between Cleveland, Toledo and Chicago less than 50 hours. Four trips per week between Toledo, Detroit, Alpena, Mackinac, Petoskey and Chicago. Daily trips between Detroit and Cleveland; during July and August double daily service will be maintained, giving a daylight ride across Lake Erie. Daily service between Cleveland and Put-in-Bay. First-class stateroom accommodations and menu, and exceedingly low Round Trip Rates. The palatial equipment, the luxury of the appointments makes traveling on these steamers thoroughly enjoyable. Send for illustrated pamphlet. Address A. A. Schantz, G. P. A., Detroit & Cleveland Steam Nav. Co., Detroit, Mich.

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Absorbent of the Times.  
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## A System of Advertising.

SAMUEL J. PLATT, Oakland, Cal.

My system for advertising a retail drug business is as follows:

1. Keep the best drugs and goods my skill, judgment and money can buy.
2. Keep everything clean and attractive. Have fine fixtures.
3. Exact of employees and myself practice, the utmost courtesy toward all coming in my store.
4. If in a large city study especially the territory tributary to my store, specially adapting my business to wants of probable customers.
5. 365 days in the year take special pains to please the ladies.
6. Have something to interest customers waiting for prescriptions, etc.

The kind that  
will wash  
and wear

S  
P  
O  
N  
G  
E  
S

At  
Hay's  
Pharmacy  
this week

7. At least twice a year have days in the nature of opening days. Attention called to the same by newspaper and circular advertising.

8. At least four times a year have a general distribution of circular matter, thoroughly covering my territory, matter neatly put up in envelopes and as far as possible addressed to the heads of families.

9. In spite of the evils of cutting, make a judicious selection or use of newspaper, circular and sign advertising afforded by patent medicine and other people who advertise to the consumer.

10. Study my city and adjacent territory and myself manufacture one or more preparations specially adapted to the wants of the people, advertising the same by samples, circulars, signs and newspaper advertising. I would try to have an article or articles better than people could get anywhere else. It or they would make my name known.

11. In large cities bill boards generally cost more than they are worth. In smaller places make a judicious use of prominent and permanent locations.

12. Make friends of newspaper-men, giving tips for news items whenever not interfering with the confidential relations of druggist to customer.

13. Pay special attention to window displays. Try each week to have something worthy of newspaper notice, paying for all notices, reciprocity of the newspaper men did not secure. From time to time allow people to exhibit articles in window, thus securing many notices. *My*

point. Effect of window display emphasized by newspaper notice.

14. Use newspapers constantly. Keep display add running all the time,

## SEGNOPS

looks queer, but we have only spelled sponges backward to interest you.

We have done more than this at our store to interest you. We have converted our windows into a curiosity shop. The greatest curiosity is how some of the Sponges are sold so low.

**H. H. HAY & SON,**  
MIDDLE STREET.

varying size just as newspapers vary in size.—progressive, modern papers.

Use local notices judiciously and plentifully, striving to have them take the form of news items. All advertising to form one complete whole. A certain per cent. of receipts to be set aside for advertising.

The main and constant purpose is to get people to come to my store.

SPONGES  
all SPONGES all  
sizes SPONGES prices  
SPONGES  
SPONGES  
SPONGES  
good SPONGES in all  
value SPONGES grades  
SPONGES

**Hay's Pharmacy.**

In all advertising impress upon the minds of the people

1. My skill.
2. Purity and extra quality of goods.
3. Reasonableness of my price.
4. Proper treatment of customers.
5. People can do better at my store than anywhere else.—*American Druggist and Pharmaceutical Record.*

The color of oxygen in the liquefied form is a bright sky blue, according to Olszewski, who has succeeded in obtaining a layer of thirty millimeters in thickness.

ANDROMEDOTOXIN is a glucoside found in several species of andromeda, rhododendron and azalea. It paralyzes the respiratory organs and acts as a violent emetic.

## A Pill Excipient for General Use.

N. A. UPHAM.

(Proceedings Council Phar. Asso.)

In the various journals there has appeared from time to time a number of articles on pill excipients, especially those adapted for use in making pill masses containing ingredients which are liable to deterioration through the application of the more common excipients, or which, owing to other peculiarities, make it impossible to obtain satisfactory results from their use. With these, we presume, the active pharmacist is familiar.

Laying aside these few exceptions, which occur but rarely in our every-day practice of compounding prescriptions, there should be on every well regulated prescription counter a good pill excipient for general use, one that is equally efficient in massing quinine and the lighter powders, or the heavy substances like calomel, subnitrate of bismuth, or reduced iron, etc.

One writer says: "A pill mass should have the consistency of a thick, well-mixed dough, which shall be easily removed from the side of the mortar and spatula, and must not stick to the fingers while being kneaded." An excipient made from the accompanying formula will produce results in the majority of instances which combines the qualities of the above observations and does away with the half-dozen or more sticky and untidy excipient bottles so often found behind the prescription counter.

### PILL EXCIPIENT.

Powdered acacia .....	5j
Powdered tragacanth .....	ʒij
Glucose .....	ʒv
Glycerin .....	ʒiij

Mix the powders in a suitable dish and thoroughly incorporate the glycerin and glucose until a perfectly smooth mixture is obtained. Then apply sufficient heat to thicken.

When cold transfer to a screw-cap ointment jar or other convenient receptacle.

**DETERMINATION OF FALSIFIED SANTONICA.**—The following is a simple and certain method: 1 gm. of suspected drug is finely pulverized and is then agitated for some time with 10 c. c. of absolute alcohol; the whole is then heated to boiling, filtered, a piece of caustic potassa is added to the filtrate, and the whole is again heated. If the drug be pure, the liquid will acquire a pronounced red color; if falsified, the color will be yellow; and if santonica be present, the liquid will be colored but faintly if at all.—Astolfi in *Bollet. Chim. Form.*

**PEROXIDE OF HYDROGEN** must be kept in a cool place. Do not expect favorable results from its use when it has become deteriorated by age or exposure to air or continual warmth.

**GAULIC OIL** is finding favor as an ingredient for sauces, pickles, etc.

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Robertson's Ready Mixed Paints,  
Carriage Paints,  
Superfine Coach Colors,  
Liquid Wood Filler & Stain Combined,



Hard Wood Filler,  
Oil Wood Stains,  
White Lead,  
Varnishes,

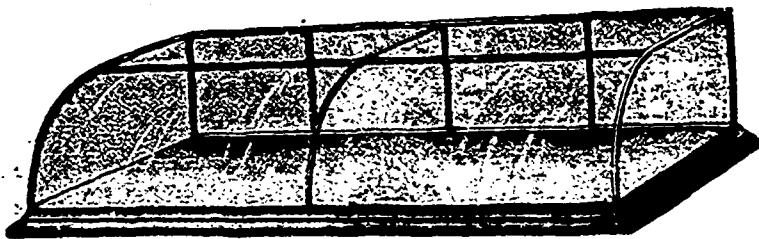
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TORONTO

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MANUFACTURERS OF

### SHOW CASES.

*Store, Office and Bank Fittings.*

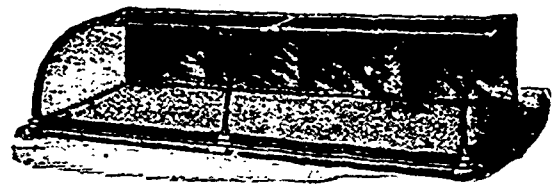
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Estimates and Sketches Supplied.

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Send for Catalogue and Price List.

## Standard Show Case Works,



—MANUFACTURERS OF SHOW CASES IN—

Metal, Walnut, Oak, Cherry and Mahogany.

You will save money by sending for our prices before buying.

ROBERT ALLEN, = Standard Show Case Works, = Windsor, Ont.

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Show Cases of every description in Nickel, Silver, Walnut, Ebonized, etc.

Hardwood Store Fittings, Metal Sash Bars, etc.

Send for Catalogue and Price List.



Show Rooms, Head Office and Factory : West Toronto Junction, Ont.

## PHARMACY ABROAD.

**SPANISH PHARMACISTS ON STRIKE.**—Compelled thereto by the financial distress of the Treasury, the Spanish Minister of Finance recently issued an order that every time a sale was made in a Spanish pharmacy, no matter what the importance of the transaction, a revenue stamp of 10 centimos (1d.) must be attached to the article delivered. It was pointed out to his Excellency that in many cases, especially in poor quarters, the revenue tax would equal or exceed the average amount of the transaction, but the Minister remained obdurate, and announced that the tax would come into force on July 1. Many pharmacists thereupon resolved to close their shops altogether until the tax should be withdrawn, whereupon the Minister gave notice that in case of such action he would order the military pharmacies to open their doors to the public at large.

†††

**PHARMACY IN SWITZERLAND.**—The approaching publication of a new edition of the Swiss Pharmacopœia has infused new hope into that section of Swiss pharmacists whose aim is the unification of all laws regulating pharmacy in the Republic and their equal application to all cantons. At present every one of the twenty odd little republics that make up the Swiss Confederation regulates the exercise of pharmacy and medicine within its territory according to its own will, and this system, or want of system, according to the advocates of unification, has hopelessly broken down. The first attempt at unification will be the introduction into the Swiss Legislature of a Bill to regulate the sale of poisons, which is to be followed by a Patent-medicine Bill.

†††

**FOREIGN PHARMACISTS IN BELGIUM.**—A Royal Decree regulating the permission to foreign pharmacists to practice in Belgium has recently been issued. It provides that in future all persons in possession of a foreign diploma who wish to exercise the pharmaceutical craft in Belgium will require a special license, application for which must be made to a "central jury." The jury will, in the first place, demand proof that the applicant's qualifications are the result of studies and examinations at least equally severe with those required of the Belgian pharmacien, and will then only grant the desired permission if the applicant can show that he possesses "extraordinary scientific attainments," or knowledge of a nature likely to be specially useful to Belgium. These conditions are practically equivalent to exclusion of the foreign pharmacist, whose existence, especially at seaside and other holiday resorts, has long been a thorn in the side of his Belgian confreres—*Chemist and Druggist*.

†††

**THE DANISH PHARMACOPŒIA.**—The recently published edition of this work is in

the Danish language and not in Latin. Several fluid extract of drugs in common use are introduced. Fluid extract of cinchona is the first of these, and is prepared by exhausting 1,000 parts of powdered cinchona with a menstruum composed of 120 parts of dilute hydrochloric acid, 200 parts of glycerine, and 4,000 parts of water. The powder is first macerated for 48 hours, and afterwards, with water, and the liquid united. This preparation corresponds exactly to that of the Dutch Pharmacopœia (third edition), except that no fixed amount of alkaloid is required. Fluid extract of digitalis follows. 1,000 parts of the leaves are macerated with a mixture of 50 parts of glycerine and 450 parts of dilute alcohol. It is then percolated with 6,000 parts of dilute alcohol. The alcohol is distilled off on a steam bath until the liquid measures 1,000 parts. It is diluted with 1,000 parts of water, and evaporated to 1,500 parts filtered and evaporated to 500 parts, to which 500 parts of alcohol are added. The dose is .1 gr.—.5grs. The fluid extract of rhamnus frangula is prepared with a menstruum of 10 parts of glycerin and 90 of water. Fluid extract of gentian appears officially for the first time. Fluid extract of ipecacubana too, is new, and is prepared by a very careful and tedious process. 800 parts of the powdered root are macerated with 400 parts of alcohol for two hours. The alcohol is then displaced by fresh spirit. The percolate is evaporated to 500 parts, diluted with 1,000 parts of water, again evaporated to 750 parts, cooled and filtered. The residue from the filtrate is washed with water until the washings have no bitter taste. The united liquids are evaporated to 500 parts, and made up to 1,000 with alcohol. This increasing tendency to include fluid extracts as official preparations, not merely for the convenience of the pharmacist, is noteworthy. —*B. and C. Druggist*.

### "A Little Nonsense Now and Then."

In the *Pharmaceutische Post* of July 23rd, we notice that at the general meeting of the Druggists' Association at Eisenach, Germany, among other attractions there was held a humorous examination of druggists' assistants being really represented by the owners. After a few introductory remarks by the examining committee, the three pupils appeared as follows:

Mr. Peter Oleum, of Bremerhaven, who makes a "refined" impression.

Mr. Chamomile Tea, of Vulgary, who is "taking" in appearance.

Mr. Senna, of Alexandria, who will no doubt "pass" the examination.

The following questions are the ones which are translatable into English, in others the play of words not finding expression in the English language:

Q.: What is absolute alcohol?

A.: Absolute alcohol is that alcohol which man absolutely must have.

Q.: What is dry distillation?

A.: If a man goes into a distillery and does not get a drink.

Q.: Name some derivatives of iodine?

A.: Iodine, Thou odine, He odine, Sho odine.

Q.: How is cane sugar prepared?

A.: Take sugar cane and simply turn it around.

Q.: How is oil of turpentine tested for purity?

A.: Set fire to the carboy containing it. If it explodes, the oil is good; if not, it can be safely poured away and a better supply bought.

Q.: How would you purify benzine?

A.: Boil it over an open fire until it is reduced to a thick extract, then dissolve this in water. The resulting product is entirely harmless.

Q.: What is Wermuth?

A.: Commissioner for Germany at the World's Fair.

Q.: How is sulphur obtained?

A.: It is prepared from matches.

Q.: What is its Latin name?

A.: Utan svefel ooch fosfor.

Q.: What does it mean?

A.: Besides sulphur, also phosphorus.

Q.: What does dissolving mean?

A.: A process often applied to socialistic meetings.

Q.: What is an atom?

A.: Nothing.

Q.: How is iodoform made?

A.: Take iodine, melt it and pour it into a form.

To the above might be added the following:

Q.: Which candle burns longer, a wax or a paraffin candle?

A.: They both burn shorter.

Q.: Does the druggist retain the prescription?

A.: No, the doctor retains it, for we all prescribe over the counter, and the doctor supplies his own medicines.

Q.: What articles are recommended to be put in the show windows of the drug store?

A.: Those articles which we merely show and do not care to sell.

Q.: What would you do if you could not read a doctor's prescription?

A.: Try to ascertain what is the matter with the patient, and then sell him a non-secret remedy and charge him a dollar.

Q.: What is camphor?

A.: An article the customer came for. All the students passed the examination *cum laude*.—*Bulletin of Pharmacy*.

**ADULTERATED OLIVE OIL.**—According to the *Druggisten Zeitung*, the following new method of adulterating this oil is used in some quarters: An odorless paraffin oil of sp. gr. 0.915 is mixed with crushed olives; the whole is macerated for twenty-four hours at 50° C. and is then expressed and filtered. The product is made to contain 25 per cent of the foreign oil.

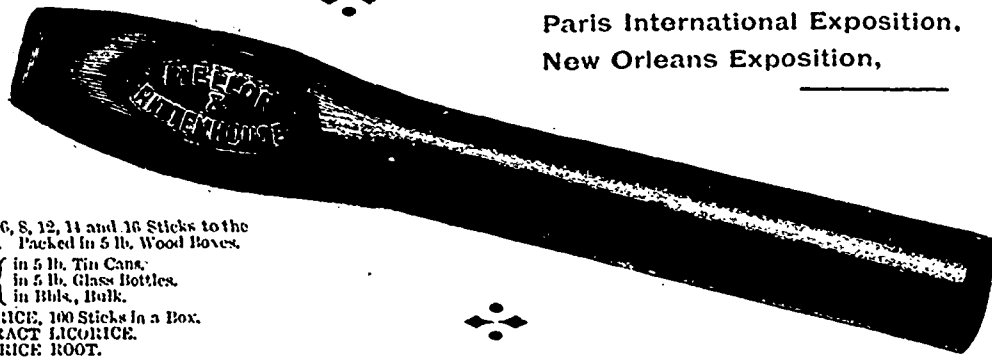
Pilocarpine is recommended for deafness caused by chronic catarrh.



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 THE ANTIKAMNIA CHEMICAL COMPANY, - ST. LOUIS, MO., U. S. A.  
 Trade supplied by all Canadian Jobbers.

# LICORICE

## HIGHEST AWARDS :

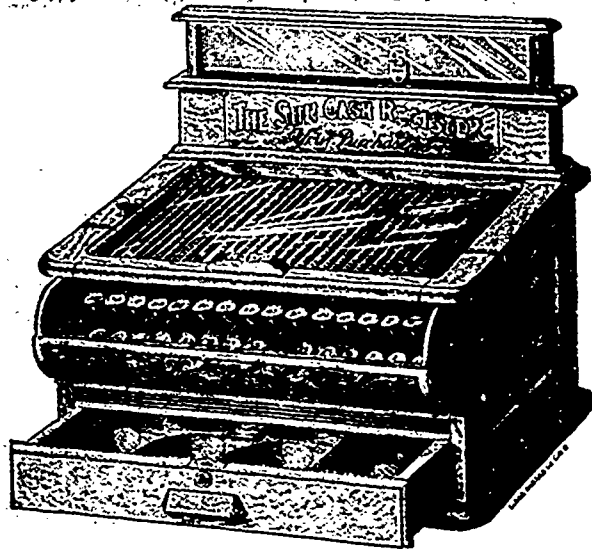


Centennial Exposition, Philadelphia,	1876
Paris International Exposition,	1878
New Orleans Exposition,	1885

STICK LICORICE, { 4, 6, 8, 12, 14 and 16 Sticks to the lb. Packed in 5 lb. Wood Boxes.  
 LICORICE LOZENGES, { in 5 lb. Tin Cans.  
 in 5 lb. Glass Bottles.  
 in Bbls., Bulk.  
 CATALUNA LICORICE, 100 Sticks in a Box.  
 POWDERED EXTRACT LICORICE.  
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## SELF-ADDING CASH REGISTER and INDICATOR.

The very latest, and most complete Machine on the market.

A perfect Key Machine at a Trifling Cost

WE SELL REGISTERS FROM \$15 UPWARDS.

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**KENNEDY BROS.,**

101 Bay Street, TORONTO, ONT.

**AN IDEAL FAMILY MEDICINE**  
 For Indigestion, Biliousness, Headache, Constipation, and Complexion, Offensive Breath, and all disorders of the Stomach, Liver and Bowels.

**RIPANS TABLETS** act gently yet promptly. Perfect digestion follows their use. Sold by druggists or sent by mail. Box 6 Tablets, 75c. Package (4 boxes), \$2. For free samples address

**RIPANS CHEMICAL CO., New York.**

**G. F. BOSTWICK**  
 MANUFACTURER  
 TORONTO, ONT.  
 MANTLES, GRATES and TILES.

Piso's Remedy for Catarrh is the Best, Easiest to Use, and Cheapest.

**CATARRH**

Sold by druggists or sent by mail. 50c. E. T. Hazeltine, Warren, Pa.



## FORMULARY.

### NEW QUININE PILL MASS.

Apothecary Kurassteiner, of St. Galgan, Germany, recommends the following process for quinine pill-mass:

Quinine sulphate	10 gm.
Citric acid in powder	2 gm.
Gum acacia, powdered	2 gm.
Sugar of milk	2 gm.
Simple syrup	q. s.

Rub up the quinine and citric acid, and add the gum and sugar of milk. After thoroughly incorporating add sufficient syrup to make a mass. Divide into 200 pills. Roll the pills into finely powdered starch and immediately thereafter in finely powdered tale. The pills are shapely, very soluble, and keep so indefinitely.

### COD-LIVER OIL WITH SACCHARIN.

Saccharin	40 gm.
Acetic ether	2 gm.
Codliver oil	100 gm.
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.—*Wiener Klinische Rundschau.*

### CAMPHOR BALL.

Spermaceeti	ʒiv.
Cera alb.	ʒj.
Zinci ox.	ʒss.
Camphor	ʒiiss.
Ol. nucis	ʒiv.
Glycerini	ʒj.

### COMEDONE.

Unna prescribes:—

Spt. Paraffin Sol. Hydrogen Peroxide	ʒj.
Wool fat (anhydrous)	ʒj.
Acetic acid	ʒj.

Mix and perfume.—*Med. World.*

### EFFERVESCENT LACTATE OF IRON.

P. Caesaris, in the *Bulletino Chimico-Farmaceutico*, gives the following directions for preparing this effervescent chalybeate, which, it seems, is very popular with Italian physicians:

Lactate of iron	20 gm.
Citric acid	40 gm.
Sodium bicarbonate	80 gm.
Sugar	30 gm.

Mix, and heat in the water-bath to 100°

C. The mixture soon swells and becomes granular. The preparation is exceedingly hygroscopic, and must be put at once in bottles and tightly stoppered. The taste is very pleasant and the preparation is well borne by even the weakest stomachs. *Nat. Druggist.*

### EXTRACT OF MALT WITH OIL.

Take of

Extract of malt	ʒāā....equal volume.
Cod-liver oil	
Oil of lemon	

Warm the extract of malt to about 140° F.; then gradually add the oil, with constant stirring, until a perfectly homogeneous fluid is obtained. Then cool and flavor. If properly mixed the oil will not separate on standing.

### CUCUMBER CREAM.

The following is said to produce a satisfactory cream:

Cucumber juice	1 pound
White wax	ʒāā.....1 ounce
Spermaceeti	
Essence of cucumber	2 ounces
Almond oil	1 pound

Melt the wax, oil and spermaceeti together with a gentle heat, and when nearly cool add the essence and juice of cucumber and stir briskly until the whole assumes a creamy consistency.

### TRAUB'S FORMULA FOR STABLE FOWLER'S SOLUTION.

Acid arsenious	1 gm.
Liquor potassæ	5 ccm.
Water	30 gm.
Distilled melissa water	5-10 gm
Alcohol, sufficient.	

Dissolve the arsenious acid in the liquor potassæ by ebullition. Dilute the solution with the water mixed with 40 gm. of the alcohol and the melissa water, agitating strongly during the addition of the diluent. Finally, add sufficient alcohol to make 100 gm.—*Nat. Druggist.*

## Bougies.

### NICKOLAS PRITSKER, PH. G.

(Read at the A. P. A. meeting, Chicago.)

From a therapeutic standpoint, bougies are very desirable and preferable to injections because:

They bring all the medicaments to the affected parts while the patient is about his vocation, not taking him from the latter except for a short time during the administration.

None of the medicament is lost, all being absorbed if the bougie is properly prepared.

Substances insoluble in liquids can be incorporated in a bougie, being solid.

It is safer, as no stricture need result because the necessary amount of drug can be incorporated, and nearly all of it is absorbed.

### PHARMACEUTICAL VALUE.

To be of importance to the druggist, however, bougies should be of such character as to admit of being formed in the laboratory with such implements as are already to be found there or easily attainable at a small expense and on short notice. Bougies requiring expensive outlays for apparatus and tedious processes are not only useless, so far as the average pharmacist is concerned, but even pernicious to the latter since they add to the monopolizing "propr. manuf." who always claim "superior facilities" for manufacturing.

To sum up, therefore, bougies should be:

(a) Readily absorbable and fusible at the temperature of the body, yet not so quickly that the material will run out before it has had its required action.

(b) Flexible and malleable.

(c) Miscible with such drugs as are usually prescribed for such cases.

(d) Constructed on simple principles with few appliances and rapidly on short notice.

The bases so far suggested do not seem

to meet with the above requirements, lacking in one or more essential points, gelatin, for instance, while flexible and malleable, can not be made quickly and easily, nor are gelatin bougies fusible, but rather simply swell. Cacao butter has been suggested, but it is neither flexible nor malleable, and acts rather on the hands of the druggist and patient before reaching the parts intended. Wax is even less desirable than either the former in all respects, particularly from the therapeutic standpoint.

### FORMULA.

To overcome these objections and to conform to all the requirements as stated above, I have, after many various fruitless efforts, succeeded in making an almost faultless bougie by emulsifying melted cacao butter with acacia, water and glycerine.

For the practical base I found the following formula par excellence:

Theobroma oil	480 grains
Powd. acacia	240 grains
Water	240 min.
Glycerin	120 min.
Powd. boric acid, sufficient.	

Melt with cacao butter and triturate in a warm capsule with acacia; add the water, previously mixed with the glycerine; place the capsule in cold water or on ice until the mass has solidified, and set the vessel aside. When required for use, take of the above four drams, incorporate with medicaments and from ten to twenty-five per cent. cacao butter, triturate until intimately mixed, and roll out into ten bougies.

To further simplify the handling of the bougies a OO empty capsule may be placed at one end of the bougie so that in holding it would not melt. Thirty-five per cent. glycerine may be incorporated with this base in making the suppositories; this does not interfere with the addition of such powders as may be needed. As a substitute for cold cream, or as a salve for lips, hands or face it is not to be improved upon. However, for the different uses, different formulas are to be preferred. As a lip and face preparation, more base and glycerine and less or no acacia is wanted, while as a base for salves but little of the glycerine and a trace of white wax is advisable.

When dry powders are prescribed in bougies these should be incorporated with an equal amount of glycerin.

I may further state that many physicians have found the above mixture a far more desirable base for suppositories than the pure cacao butter. Directing attention to this may prevent some ingenious proprietary manufacturer from bringing forth a substitute for cacao butter under some clever name as "bugioleioe," thereby taking profit from us and our science.

TO IMPROVE LEMONADE.—An ounce and a half of orange flower water to the gallon of syrup is found to be a great improvement to lemonade, giving more bouquet and a more delicate flavor.

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"KING OF PAIN."  
**LINIMENT**

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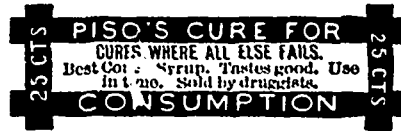
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**Magic Catarrh Snuff**  
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*This preparation has been proved  
to be a POSITIVE CURE for*

Catarrh,  
Cold in the Head,  
Catarrhal Deafness,   
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CURES WHERE ALL ELSE FAILS.  
Best Cough Syrup. Tastes good. Use  
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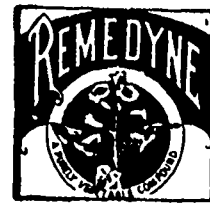
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Dyspepsia and dis-  
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a Special Stomach  
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REMEDYNE is Purely Vegetable in  
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suffering in some form, and enumerate  
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beings in the world.

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is a highly concentrated AND course of medicine within itself. From  
one to three bottles will cure ANY  
CASE of Dyspepsia or

**LIVER COMPLAINT**

THE DOSE is so small that each bottle  
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Take no substitute; every druggist keeps  
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Three bottles, \$2.75  
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**REMEDYNE MFG. CO.,** BRANTFORD, CANADA.

*Every Druggist should handle*

**Druggist Favorite, 5c.**  
—AND—  
**Patti, 10c.**  
—AND—  
**CIGARS.**

Send for sample order.

**FRASER & STIBTON,** London, Ont.

### Show-Bottle Colors.

Several of our readers having asked for formulae for show-bottle colors, we give the following which are taken from the *Pharmaceutical Record*:—

#### GREEN.

1.

Copper sulphate ..... 1 pound.  
Sodium chloride ..... 3 pounds.  
Distilled water ..... 15 pints.  
Hydrochloric acid ..... 1 pint.

Dissolve the sulphate of copper and salt in the water; add the acid lastly and filter.

2.

Potassium bichromate . . . 1 dram.  
Copper-ammonia sulphate . . . 2 drams.  
Water, sufficient to make . . . 1 gallon.

Dissolve both salts in separate portions of water and mix. It is recommended that the water used in dissolving the salts be treated with about 6 grains of alum and be previously boiled.

3.

Verdigris ..... 12 drams.  
Acetic acid ..... 4 fluid ounces.  
Water, sufficient to make . . . 1 gallon.

Dissolve, filter and add enough ammonia water to produce the shade required.

4.

Ferric oxide ..... 1 ounce.  
Copper sulphate ..... 8 ounces.  
Hydrochloric acid ..... 4 fluid ounces.  
Water, sufficient to make . . . 1 gal on.

Dissolve the ferric oxide and copper sulphate in the water and let stand 24 hours before filtering.

5.

Nickel ..... 120 grains.  
Nitric acid ..... 1 fluid ounce.  
Potassium bichromate . . . 120 grains.  
Water, sufficient to make . . . 1 gallon.

Dissolve the nickel in the nitric acid and add the solution so formed to the water in which the potassium bichromate has been previously dissolved.

#### AMETHYSTINE.

Salicylic acid . . . . . 5 grains.  
Ammonia water . . . . . q. s.  
Solution iron chloride . . . . . q. s.  
Water, sufficient to make . . . 1 gallon.

Dissolve the salicylic acid in sufficient ammonia water to effect solution, and make the bulk up to 1 gallon with pure water. To this is added sufficient solution chloride of iron to produce the desired tint of color, and lastly, a few drops of hydrochloric acid.

#### SCARLET.

Ammonia water . . . . . 2 fluid ounces.  
Acetic acid . . . . . 4 fluid ounces.  
Alcohol . . . . . 2 fluid ounces.  
Tincture chloride of iron . . . ½ fluid ounce.  
Distilled water, sufficient to make 1 pint.

Add the acetic acid to the ammonia water, shake thoroughly, and add the alcohol. Mix the tincture chloride of iron with the water, and to the solution so formed add the first solution of ammonia water, alcohol and acetic acid.

#### GARNET.

Potassium bichromate . . . 10 drams.  
Sulphuric acid . . . . . 10 fluid drams  
Distilled water . . . . . 19½ fluid ounces

Dissolve the bichromate potassium in the water contained in a capacious mortar, and to this add slowly and with constant stirring the whole of the sulphuric acid; then add

Alcohol . . . . . ½ fluid ounce.  
Distilled water, sufficient to make 1 gallon.

Allow to stand for 24 hours and filter. This liquid has a deep "mauve green" color by daylight and is garnet by night.

#### CRIMSON.

Alkanet root . . . . . 1 pound.  
Oil turpentine . . . . . 1 gallon.

Percolate alkanet root with the turpentine.

#### PURPLE BLUE.

Copper sulphate . . . . . 4 drams.  
Ammonia water . . . . . 2 fluid ounces.  
Distilled water . . . . . 12 pints.

Dissolve and filter.

#### RED.

1.

Cochineal . . . . . 1½ drams.  
Boiling water . . . . . 6 pints.  
Sulphuric acid . . . . . 4 fluid drams.  
Water, sufficient to make . . . 2 gallons.

Infuse the cochineal with successive portions of boiling water until all the coloring matter is extracted; filter and add sufficient cold water, to which has been added the sulphuric acid, to bring the bulk of solution up to 2 gallons.

2.

Solution chloride of iron . . . 25 drops.  
Ammonia water . . . . . ½ dram.  
Acetic acid . . . . . 1 dram.  
Alcohol . . . . . 4 drams.  
Water . . . . . 1 pint.

Add the alcohol to the water and the ammonia water to the acetic acid; mix both solutions, and add lastly the solution of chloride of iron.

#### PINK.

Cobalt oxide . . . . . 1 dram.  
Nitric acid . . . . . 6 fluid ounces.  
Water, sufficient to make . . . 1 gallon.

Dissolve.

#### BLUE.

Dissolve 1 ounce of copper sulphate in a pint of water. Add ammonia water sufficient (about 4 fluid ounces) to produce a clear deep blue solution, which may be diluted with water to make 1 gallon more or less. Let stand for 12 hours, then decant the clear solution.

#### VIOLET.

Gudbear . . . . . 60 grains.  
Ammonia water . . . . . 4 ounces.  
Water, sufficient to make . . . 1 gallon.

Macerate 24 hours and filter.

#### YELLOW.

New York chrome yellow . . . ½ ounce.  
Nitric acid . . . . . 1 ounce.  
Hydrochloric acid . . . . . ½ ounce.  
Water . . . . . 1 gallon.

Dissolve and filter.

#### ORANGE.

1.

Bichromate potassium . . . . . 2 ounces.  
Nitric acid . . . . . 1 ounce.  
Distilled water . . . . . 1 pint.

Dissolve the bichromate of potassium in the water, add the nitric acid and dilute with more water until the desired shade of color is obtained.

2.

Chromic acid . . . . . 61 grains.  
Distilled water . . . . . 1 gallon.

Dissolve.

#### PURPLE.

Pot manganate potassium . . . . . 20 grains.  
Distilled water . . . . . 1 gallon.

Dissolve.

—Phar. Record.

### Meat Preserving Preparations.

Dr. E. Polouske contributes to the *Pharmaceutische Zeitung* the following analyses of certain meat preservatives found in trade in Berlin, and emanating from the *Fabrik* of E. Dressel, of Berlin:

*Odorless Meat Preservative*.—A clear, yellow liquid, with a slight acid reaction, of 1.128 specific gravity. One liter of it contains:

Common salt . . . . . 22 gm.  
Sodium sulphate, anhydrous . . . 73.5 gm.  
Vanilla . . . . . 15 eg.  
Sodium sulphite . . . . . 171 gm.  
Sulphurous acid . . . . . 34.5 gm.

In other words, it is simply a solution of a mixture of sodium sulphite and bisulphite.

*Meat Preserving Powder*.—Finely pulverized sodium disulphite.

*Preservative Salt or Pickle Salt*.—Sodium chloride, 80 parts; borax, in powder, 8 parts; potassium nitrate, 12 parts.

The same authority gives the following analyses of other meat preservatives and colors:

*Schramm's Latest Meat-preserving Powder*.—Merely finely powdered sodium disulphide.

*Schramm's Pulverized White of Egg*, said by the manufacturer to be "the best known combining agent (*Bindemittel*) for sausages," is simply impure blood albumen.

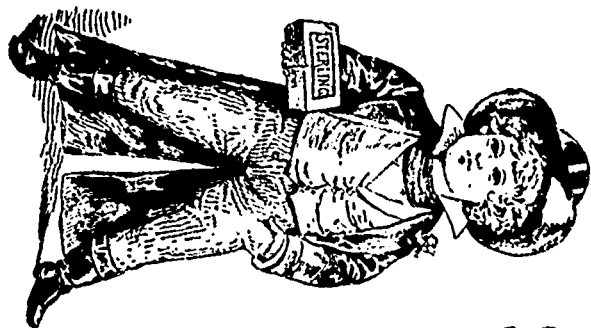
*E. Dressel's Chromazole*, "a coloring agent for prepared sausage—not to be on sausage that must be cooked," is a mixture of sodium sulphate and sodium sulphite, with some organic coloring matter.

*Dressel's Preserve Salt*, "for repacking American hams recently removed from the brine," turns out to be merely pulverized borax.

### Hints For Business Men.

N. C. Fowler, jr., of Boston, writes as follows:

"The statement I make, that dull times offer an unusually good opportunity for general-local trade-pushing and advertising, I back with the experience of many years, and the positive knowledge of hundreds, if not thousands, of advertisers who never think of cutting publicity expenses during dull times, and who advertise then, first, because it always pays to advertise; second, because they pull trade away from the drones who are afraid to advertise, and thereby build up trade for keeps; third, because people make up their minds to buy when good times come, and will buy of the man who makes the best hard times announcements."



**STERLING SOAP.**  
**Best**  
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 Manufactured By  
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## WANZER BATH SOAP

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*Is very beneficial for the Skin---healing irritations rapidly.*

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Sold in Barrels, Half-barrels, 1 lb, 5 lb, 10 lb, 25 lb. & 50 lb. Tins.  
Also in full 2 oz. Vials at \$5.25 per gross.

We will Print your Name and Address on Label when desired, free of Cost.

A full size sample by mail on application.

SPECIAL QUOTATIONS FOR QUANTITIES.

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- Argoline Cold Cream.
- Argoline Camphorated.
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Our goods are clarified by U. S. process of filtering through bone charcoal, and *not* by the German process of *bleaching* with acids.

**ARGOLINE MANUFACTURING COMPANY,**  
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## RICHARD 1st CIGARS.

### FINEST 5c. GOODS

IN THE MARKET.

# J. M. FORTIER,

MANUFACTURER,

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## Colored Fires.

"Although the manufacture of colored fires may not properly be included in the practice of pharmacy, the druggist is frequently called upon to prepare them.

"The following formulas are designed for making fires suitable for theatrical illuminations, street parades, etc., which are the kinds usually required to be made by druggists. In the manufacture of fireworks a great variety of colored fires are made, but their formulas are not important to the druggist.

"In making colored fires it is necessary to observe some precaution in powdering and mixing the materials. The substances should be separately powdered, then mixed by means of a wooden spatula, and the mixture kept in tin cans away from moisture or heat. The sulphur directed is sometimes omitted from the formula on account of its disagreeable vapor, but it is not generally objectionable in the quantities used.

## BLUE FIRE.

Dark blue may be made by taking :

Sulphur .....	1 ounce.
Burnt alum .....	1 ounce.
Carbonate of copper.....	1 ounce.
Chlorate of potassium.....	4 ounces.
Shellac .....	1 ounce.

Powder the drugs fine and mix with the shellac in moderately coarse powder.

Light blue may be made by taking :

Sulphur .....	1 ounce.
Burnt alum .....	2 ounces.
Chlorate of potassium.....	4 ounces.
Shellac .....	1 ounce.

Mix the same as the preceding.

## GREEN FIRE.

Dark green may be made by taking :

Nitrate of barium .....	4 ounces.
Boric acid.....	1 ounce.
Chlorate of potassium .....	3 ounces.
Sulphur .....	1 ounce.
Shellac .....	2 ounces.

Powder the drugs fine and mix with the shellac in moderately coarse powder.

Light green may be made by taking :

Carbonate of barium.....	2 ounces.
Sulphur .....	1 ounce.
Chlorate of potassium.....	4 ounces.
Shellac .....	2 ounces.

Mix as the preceding.

## RED FIRE.

Dark red may be made by taking :

Nitrate of strontium.....	6 ounces.
Chlorate of potassium.....	2 ounces.
Sulphur .....	1 ounce.
Shellac .....	1 ounce.

Powder the drugs fine and mix with the shellac in moderately coarse powder.

Light red or pink may be made by using only half the quantity of the nitrate of strontium, or as follows :

Chalk .....	2 ounces.
Sulphur .....	1 ounce.
Chlorate of potassium.....	3 ounces.
Charcoal .....	1 ounce.
Nitrate of potassium.....	3 ounces.
Shellac .....	1 ounce.

Powder and mix as the preceding.

## VIOLET FIRE.

Burnt alum .....	1 ounce.
Carbonate of potassium .....	1 ounce.
Sulphur .....	1 ounce.

Chlorate of potassium.....	4 ounces.
Shellac .....	1 ounce.

Powder the drugs fine and mix with the shellac in moderately coarse powder.

## WHITE FIRE.

Nitrate of potassium .....	8 ounces.
Charcoal.....	1 ounce.
Sulphur .....	1 ounce.
Shellac .....	1 ounce.

## YELLOW FIRE.

Sulphur .....	1 ounce.
Dried carbonate of sodium.....	2 ounces.
Chlorate of potassium.....	5 ounces.
Shellac .....	1 ounce.

Powder and mix as the preceding.

"The foregoing are all the colored fires that are generally required for theatrical illuminations, street parades, etc., but a great variety of other colors may be made by variously combining them, and many shades of color may be made by varying the quantity of the ingredients used.

## LIQUID COLORED FIRES OR FLAMES.

"These may be made by dissolving certain substances to saturation in alcohol or other liquids which will dissolve them, and burn rapidly. They are best ignited in a shallow iron pan, which, for safety, should be set in a shallow pan of water. Considerable caution is required in burning these liquids, that accidents may be prevented.

"The substances used should be finely powdered and triturated with the alcohol in a mortar.

"Blue may be made by dissolving acetate of zinc in alcohol; green, by dissolving boric acid in alcohol; red, by dissolving nitrate of strontium in alcohol, or by making a strong tincture of lycopodium; violet, by dissolving carbonate of potassium in alcohol; yellow, by dissolving nitrate of sodium in alcohol; white, by dissolving camphor in alcohol.

"Another method of exhibiting colored fires, and perhaps the best of all, is to mix the finely powdered substances which produce the colors, as above, with a moderately thick solution of shellac in alcohol. They are thus suspended, and when burned give forth their characteristic color."—*Formulary.*

## Therapeutics of Damiana.

The therapeutics of damiana seems to have progressed from the merely empirical stage to a point where it can be prescribed with something like scientific accuracy. Though slower in action, it is analogous to strychnia in effect, but more tonic than the latter. On the bowels it promotes increased peristalsis, causing 1 or 2 mushy stools per day, and it is an effective remedy in the habitual constipation of neurotic subjects, especially of those who are victims of sexual perversion. Increased diuresis follows its use, and many cases of irritable bladder and urethra are very greatly benefited by it. On the heart, also, it acts as a tonic sedative equal in some cases of functional disturbance to cactus grandiflorus. From the above resume, it is plain why damiana has proven so efficacious in cases of nerve

exhaustion resulting from sexual excesses, and why, far from being a direct stimulant of erotic desires, it has been found to act as a sedative to abnormal sexual appetite. In short, it is not a "specific," but its so-called specific action is but the result of its general tonic effect.—*Cleveland Med. Journal.*

## Hazel-Nut Oil.

This oil has recently been examined and appears to be almost, if not quite, as useful for medicinal purposes, as almond oil. It possesses a mild taste and smell and is of a bright yellow colour. It is not a drying oil. Its specific gravity is .9161. With the elaidin test it gives a firm yellowish mass. It contains a small quantity of free fatty acids, one gramme neutralising .0035 gramme of potash. Its saponification equivalent is 191.4, and its iodine absorption 83.2. It becomes solid at 20° and becomes liquid again at 4°. The fatty acids solidify at 9° and melt at 17°. They do not give the colour reactions of the acids of almond oil.—*Pharm. Zeitung.*

## Against the Code.

A lady not feeling so well as she liked, went to consult a physician. "Well," said the doctor, after looking at her tongue, feeling her pulse, and asking her sundry questions, "I should like to advise you—ahem!—to get married."

"Are you single, doctor?" inquired the fair patient, with a significant smile.

"I am, my dear lady; but it is not etiquette, you know, for physicians to take their own prescriptions."—*Medical Bulletin.*

## Tolpyrin and Antipyrin.

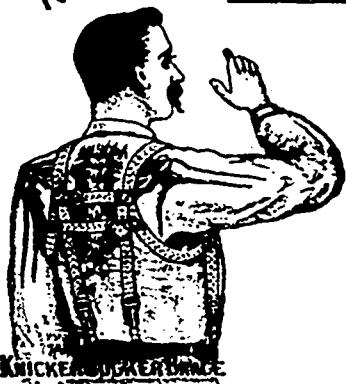
These homologues, obtained in similar manners, resemble each other greatly. An easy method of distinguishing them is, therefore, useful. A weak solution of tolpyrin is rendered turbid by the addition of soda solution, whilst antipyrin is only precipitated in strong solutions. If a mixture of tolpyrin with antipyrin is suspected, the melting point will indicate it, since it melts below the melting point of antipyrin.—*Pharm. Zeitung.*

## Caffeine-Chloral.

Chloral possesses the well-known property of most aldehydes, of combining with feebly basic compounds, such as formamide, uric acid, cyanogen, &c. It does so with caffeine. The compound so formed appears to be very useful in relieving constipation. The compound occurs in colorless tables, easily soluble in water. Professor Ewald, of Berlin, has used it in hypodermic solution, in doses of .2 to .3 gramme at a time, given two or three times a day.—*Journal de Pharmacie d'Autres.*

KURO-MOJI OIL is the volatile oil of a Japanese Lauracea, the *Lindera forficata*.

NO MORE ROUND SHOULDERS.



WEAR THE  
**KNICKERBOCKER**  
**Shoulder-Brace**

—AND—  
**SUSPENDER COMBINED**

And walk upright in life.

**KNICKERBOCKER BRACE**  
Expands the Chest, promotes Respiration, prevents Round Shoulders. A perfect Skirt-Supporter for Ladies. No harness—simple—unlike all others. All sizes for Men, Women, Boys and Girls.

**Cheapest and Only Reliable Shoulder-Brace.**

The importance of a Shoulder-Brace in holding the body erect, expanding the Chest, preventing Round Shoulders and Hollow Chest, is well understood. Good health depends upon it. Many attempts have been made to present a suitable article for this purpose, all of which, however, were objectionable in some respects, which prevented their coming into general use. In the Knickerbocker Brace all objections have been overcome. It is a Combined Shoulder-Brace and Suspender. It provides new and improved suspenders for men's pants, and supporters for ladies' undershirts, which do the double duty of holding up and bracing up.

Sold by Druggists. Send chest-measure around to body. Address,

**Knickerbocker Brace Company,**

EASTON, PA., U.S.A. N. A. JOHNSON,  
President.

For sale by Lyman Bros. & Co., of Toronto,  
and other Wholesale Druggists.



# JOHNSON'S BELLADONNA PLASTER.

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HAS BEEN ADOPTED BY OVER  
400 HOSPITALS AND MANY THOU  
SANDS OF PHYSICIANS AS THE  
STANDARD OF EXCELLENCE—AS  
GIVING MORE IMMEDIATELY PRO  
NOUNCED AND UNIFORM ACTION  
THAN ANY OTHER KNOWN.

Order of your wholesale house and specify

**JOHNSON & JOHNSON.**

Prices and all information on application to

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25 St. Peter St., MONTREAL.

## JONES' Drug and Baking Powder MIXER AND SIFTER,

For Druggists, Manufacturing Chemists and Perfumers.

THESE ARE MADE IN THREE SIZES :

Suitable to mix—5 lbs., 10 lbs. and 25 lbs.—at \$6, \$12 & \$18 each.

Easily  
Cleaned  
and  
no Wood  
to Scent.



Dust  
Proof  
and  
Changeable  
Sieves.

Rubber brush rubs all lumps out of powder before it is sifted.

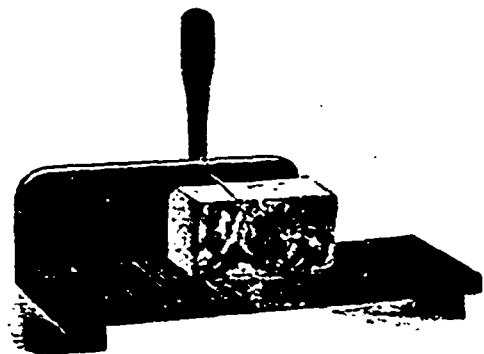
A simple, durable, practical and cheap machine for the mixing, compounding and triturating of all powders intended for manufacturing and compounding Baking Powders, Tooth Powders, Face Powders, Condition Powders, and all Compound Druggists' Powders. This machine may be termed the thorough Mixer and Sifter, and will do more mixing in less time than all other high priced mixers combined. This machine mixes powders thoroughly, then forces same through sieves of the proper fineness for the intended powders.

Two Sieves, 40 and 60 mesh, with each Mixer, and valuable formulas for Baking Powder, Tooth Powder, Dyspepsia Powder, &c.

90 Mesh and 120 Mesh Wire Sieves, and 160 Mesh Bolting Cloth, 75c. each. Send for circular.

**WM. J. DYAS, Strathroy, Ont., Sole Agent for Canada.**

## "EXCELSIOR" Soap Cutter & Trimmer.



**SIMPLE IN OPERATION.**

**UNIFORM IN ACTION.**

**PREVENTING WASTE.**

Will cut hard as well as green soap, and has a Trimmer which finishes the edges smooth and even, adding greatly to the appearance.

**PRICE, \$1.00.**

Manuf'd by the **EXCELSIOR MANUFACTURING CO.,**  
(Patentees)

☞ Include one in your next order to your Jobber.

**WM. J. DYAS,**

**STRATHROY, ONTARIO,**

Sole Agent for Canada.

## BUSINESS NOTICES.

As the design of the CANADIAN DRUGGIST is to benefit mutually all interested in the business, we would request all parties ordering goods or making purchases of any description from houses advertising with us to mention in their letter that such advertisement was noticed in the CANADIAN DRUGGIST.

The attention of Druggists and others who may be interested in the articles advertised in this journal, is called to the SPECIAL CONSIDERATION of the BUSINESS NOTICES.

### Archdale Wilson & Co.

Read Archdale Wilson & Co.'s full page advertisement on page 9.

### Parke, Davis & Co.

Call the attention of the trade to some of their leading reasonable specialties on last page of cover.

### Rijan's Tablets.

The proprietors of Rijan's Tablets are showing their characteristic energy in pushing the sale of their preparation, by advertising it extensively in a full line of papers. Having established a general agency in Canada, the goods may now be obtained through all jobbers.

### "The Highest Award"

at the Chicago World's Fair. Who got it? Adams & Sons, for their Tutti Frutti and other well known brands of chewing gums.

### Cosmo Buttermilk Soap Co.

Buttermilk has long been recognized as a valuable agent for chafing or roughness of the skin, but its incorporation in a soap such as the Cosmo Buttermilk Soap Co. have placed before the public, gives us a preparation far superior to the old-fashioned remedy. The wonderful sales attained already speak well for the favor with which it has been received, and we have no doubt the sale in Canada will be equally rapid. See advt. on page 25.

### Arthur P. Tippet & Co.

are offering a very superior brand of extra Purified Epsom Salts which they claim to be free from dirt and perfectly dry. Write them for samples, also for quotations on chemicals, etc. Advt. on page 42.

### Curtis & Son.

of Portland, Maine, advertise their "Yankee Brand" of Spruce Chewing Gum, which is a rapid seller in the United States and will probably "take" with Canadians.

### The Toronto Rubber Co.

are offering special lines in rubber goods in their advt. on page 3. Being exclusive dealers in manufactures of rubber, their stock is always fresh, well assorted and of the newest goods.

### How to Keep the Stock.

By the time this reaches our readers the Tanglefoot season will be practically over. The retailer as a rule has a quantity left over. To insure its perfect condition next season and to avoid loss to their friends the manufacturers request every dealer to look after his stock. Full cases will take care of themselves—if kept level boxes and parts of boxes should be kept in a place of uniformly

and moderately warm temperature and where they will not be disturbed needlessly, the cornice in the store or a high shelf in the store-room would be admirably suited for this. Tanglefoot keeps well in almost any condition, but if stored as above will keep with absolute certainty and without the loss of a single sheet to the dealer—this the manufacturers desire above all.

## Magazines.

### The Cosmopolitan.

The second edition of *The Cosmopolitan* for September brought the total edition up to 211,000 copies, without doubt the largest edition of any magazine in the world for this month. It remained for *The Cosmopolitan* to have the World's Fair treated in a single number by twelve different writers. As the exposition of 1893 must remain one of the leading events in the history of the United States, the most distinguished men were asked to prepare this magazine volume, which is destined to become valuable as one of the most perfect descriptions of the World's Fair. Among the number of those who contribute are our only ex-president, Walter Besant, the most distinguished of the English literary men who visited the exposition, and a host of others. Besides the usual fiction, including a story by Mark Twain, entitled, "Is He Living or is He Dead," and the regular departments, *The Cosmopolitan* contains nearly one hundred illustrations devoted to the World's Fair, including eleven full pages. It is pronounced one of the most remarkable of the publications yet issued regarding the Fair. It is a completely illustrated guide or souvenir, as one prefers to call it, by the most famous writers of the day, put before the reader at the price of 12½ cents, and more than the equal of the books of the Fair which sell for seventy five cents and one dollar.

The *Cyclopedic Review of Current History* for the second Quarter of 1893 is now ready. It is a wonderful compendium of the prominent events of the last three months; while its subjects are of necessity, briefly treated, nothing of importance appears to have been omitted. Under the general titles of "Leading Topics," "International Affairs," "Affairs in Europe," "Affairs in Asia," "Affairs in Africa," "Science, Literature, and Miscellany," it details the world's most recent happenings with singular minuteness, perspicacity, and fidelity, telling all that really needs to be known about any one subject, and referring to all subjects of consequence in a most intelligent and practical way. A work like this is a necessity in these busy, bustling times of ours, and this work seems to be the best of its species. While there are similar publications, the *Cyclopedic Review* holds an original and exclusive position. Its peculiar merits entitle it to general recognition. (Garretson, Cox & Co., Publish-

ers, Buffalo, N. Y. \$1.50 per year; single copies, 40 cents.)

### Deal Gently With The Erring!

We have just received a copy of the greatest home song ever published in this country. The privilege of publishing in America alone cost \$2,000 in gold. It is a song that will reach the heart of every christian in the land. The melody is perfectly beautiful; can be played on piano or organ. We give our readers the first verse and chorus:

#### FIRST VERSE.

Deal gently with the erring!  
Ye know not of the power  
With which the dark temptation came  
In some unguarded hour.  
Ye may not know how earnestly  
They struggled, nor how well,  
Until the hour of weakness came,  
And sadly thus they fell.

#### CHORUS.

Forget not thou hast often sinned,  
And sinful yet must be!  
Deal gently with the erring one  
As God hath dealt with thee.

Price, 40 cents per copy; can be obtained by addressing the publisher, F. W. Helmick, 265 Sixth Avenue, New York.

Our readers will receive a copy by sending 20 cents in postage stamps.

**SOLUBILITY OF MERCURIC IODIDE IN METHYLENE IODIDE.**—Considering the indifference of red iodide of mercury to other liquids it is quite soluble in methylene iodide, being more soluble in the warm liquid than when it is cold, the salt separating out on cooling in the yellow modification. At 100° C., one part of the salt dissolves in six of methylene iodide, and 58 parts of salt will dissolve in 100 of the liquid at 180° C. the boiling point of CH<sub>2</sub>I<sub>2</sub> being 182° C.—*Reizers in Zeitschr. f. Anorg. Ch.*

## PATENTS

We secure United States and Foreign Patents, register Trade-Marks, Copyrights and Labels, and attend to all patent business for moderate fees. We report on patentability free of charge. For information and free hand-book write to H. E. WILSON & CO., Attorneys at Law, Opp. U. S. Pat. Office, WASHINGTON, D. C.

### BUSINESS FOR SALE.

**DRUG BUSINESS** in Northern Ontario, paying well, moderate and well selected stock. The owner being a physician, is obliged to give his whole attention to his practice. Address—"MEDICIS," care Canadian Druggist, Strathroy, Ont.

### SITUATION WANTED.

**SITUATION WANTED** as Drug Clerk by a young man of three years' experience. Can furnish good references. Address—"F. W. C. R.," 353 Church St., Toronto.

### FOR SALE.

**A DRUG BUSINESS IN HAMILTON**, in one of the best stands. Stock about \$4,000. Will accept business in country as part payment. Good reasons for selling. Apply—"DRUGGIST," care Archdale Wilson & Co., Hamilton, Ont.

**Vanilla Cultivation in Mexico.\***

At the time of the conquest of Mexico, the Aztecs used the vanilla for flavouring chocolate. The Spaniards learned its use from them and introduced it into Europe. Gathered at first from the vines growing wild in the forests, its cultivation as a special industry became profitable, though just at what date there are no records to show; but we find that as early as 1760 there were *rainillales*, or vanilla plantations in the vicinity of Papanthla.

A native of Eastern Mexico, this plant grows wild in the State of Vera Cruz, from one extremity to the other of its coast line, and from the sea beach up to the mountains of the Sierra. It is cultivated mainly in the cantons of Misantla and Papanthla, in that State, the little that is produced in Oaxaca being for the most part gathered from the vines which grow wild and uncultivated in the forests.

The vanilla plant belongs to the orchid family, has a pulpy stem which grows to several yards in length, attaches itself to trees, and appears to be little dependent

on the soil for nourishment. The leaves are lanceolate and pulpy, and the yellow flowers bud from the axilla formed by the leaves with the stem. The fruit is a pod from six to twelve inches long, and about half an inch in diameter at its thickest part, tapering down towards the stem, curved in its entire length, dark green in its earlier stages, and yellow when fully ripe. It is filled with minute black seeds, somewhat resembling iron filings. When prepared for market, the pod becomes reduced to about a quarter of its original thickness, is black in color, and, it is needless to say, emits a very agreeable perfume.

Six varieties of vanilla are known in Mexico, namely, the mansa, the cimarrona, the mestiza, the pompona, the puerco, and the mono. Of these the mansa is the only one cultivated. The cimarrona, or wild vanilla, has a more pointed leaf and a thinner vine than the mansa; the pod is shorter, rounder, and thinner. The mestiza has more pointed leaves than the mansa, but less so than the cimarrona; the size of the pods is smaller than those

\*From the *Revista Financiera Mexicana*.—Phar. Jl.

THIRD EDITION.

**MANUAL OF PHARMACY  
AND  
PHARMACEUTICAL CHEMISTRY.**

By CHAS. F. HEBBNER, P.H.G., P.H.M.B.,

Dean of the Ontario College of Pharmacy and formerly Instructor in Theory and Practice of Pharmacy in the N. Y. College of Pharmacy.

The study of Pharmacy simplified by a systematic and practical arrangement of topics, and the elimination of unnecessary matter.

The Book is a Cloth Bound, 12mo., of 252 Pages.

The most practical work yet published for the use of pharmaceutical students preparing for College or State Board Examinations. It can be read with profit by all pharmacists seeking the correct understanding of scientific pharmaceutical literature in general. It is also calculated to insure a sound foundation to the beginner contemplating a subsequent course of training in colleges of pharmacy.

The first edition has been thoroughly revised and freed from typographical errors; in addition thereto the third edition contains a treatise on Urinalysis, chemical and microscopical (fully illustrated) and a full index.

The book has been well received everywhere, and has been adopted either as a text-book or book for reference by most of the colleges of pharmacy.

Price \$2.00 (\$2.25 interleaved) by mail, postage prepaid.

*A Synopsis of the  
British Pharmacopœia  
Preparations.*

By THE SAME AUTHOR.

The object of this work is to furnish, in a most convenient manner, a method for the study of the official preparations as to their Latin and English titles and synonyms, their composition, methods of preparation, strengths, doses, etc., arranged in classes.

With this end in view the B. P. preparations have been tabulated and, in most cases, the individual members of each class divided into groups, each group presenting some general features in common, in mode of preparation, ingredients, similarity of active constituents, strength, dose, base, etc. This book will be found an invaluable aid to apprentices and students in pharmacy or medicine.

Price \$1.00, interleaved.

Either of these books will be mailed free of postage on receipt of price.

**CANADIAN DRUGGIST**  
STRATHROY, CANADA

**Ripans Tabules.**

Disease commonly comes on with slight symptoms, which when neglected increase in extent and gradually grow dangerous.

IF YOU SUFFER FROM HEADACHE, DYSPEPSIA OR INDIGESTION,

**TAKE RIPANS TABULES**

IF YOU ARE BILIOUS, CONSTIPATED, OR HAVE A DISORDERED LIVER,

**TAKE RIPANS TABULES**

IF YOUR COMPLEXION IS SALLOW, OR YOU SUFFER DISTRESS AFTER EATING,

**TAKE RIPANS TABULES**

FOR OFFENSIVE BREATH AND ALL DISORDERS OF THE STOMACH,

**TAKE RIPANS TABULES**

Ripans Tabules act gently but promptly upon the liver, stomach and intestines; cleanse the system effectually; cure dyspepsia, habitual constipation, offensive breath and headache. One TABLE taken at the first indication of indigestion, biliousness, dizziness, distress after eating or depression of spirits, will surely and quickly remove the whole difficulty.

Ripans Tabules are prepared from a prescription widely used by the best physicians, and are presented in the form most approved by modern science.

If given a fair trial Ripans Tabules are an infallible cure; they contain nothing injurious and are an economical remedy.

**One gives relief.**

A quarter-gross box will be sent, postage paid, on receipt of 75 cents by the wholesale and retail Canadian agents,

**LYMAN, KNOX & CO.**

374 St. Paul Street, Montreal, P. Q., and 43 Colborne Street, Toronto, Ontario.

**W. T. STRONG, 184 Dundas Street, London, Ontario.**

**BOLE, WYNNE & CO., Winnipeg, Manitoba.**

Local druggists everywhere will supply the Tabules if requested to do so.

**They are Easy to Take, Quick to Act, and Save many a Doctor's Bill.**  
**SAMPLES FREE ON APPLICATION TO THE RIPANS CHEMICAL CO., NEW YORK CITY.**



of the mansa, and larger than those of the cimarrona. This variety is scarce, and when prepared it can hardly be distinguished from the mansa. The pompona (*signeante* or banana vanilla, as the Totonaco Indians, who occasionally eat it, call this variety) has larger and rounder leaves, and a vine one half thicker than the mansa; the pod is double the size, and triangular in shape, resembling somewhat a badly nourished plantain; it has an extremely pleasant smell, not unlike anise, and is used in Habana by the tobacco manufacturers to mix with cigars. The puerco and mono, which grow wild and resemble the cimarrona, are not used in commerce.

There is yet another vanilla, called the tarro, or bamboo vanilla, which is considered by many as a distinct species, but is really nothing else than the mansa grown in the *tarrales* or bamboo thickets in the depths of the virgin forests, where it does not receive a sufficiency of sun and air, and produces a pod thinner and longer than the ordinary mansa.

The vanilla buyers formerly divided the prepared bean into four classes namely:—

1. The beans or pods from six and a half inches long and upwards, short in the neck or stalk, sound and black; the beans which become split or open, provided they have the foregoing qualities, and the split does not extend more than a third of the pod. This class was again subdivided into *terciada*, which is composed of the

shortest pods; *primera chica*, which contains the next in size; *primera grande*, the next; *marca menor*, the next; and *marca mayor*, the largest of all.

2. Those pods which differ from the *terciada* only in being shorter, two of them counting as one of the first class.

3. *Zacate*, or the pods of all sizes which are imperfect through being gathered before becoming properly ripe, or being over cured, *pescozuda*, *vana*, *cueruda*, and *apocoyonida*, all names for pods in a more or less damaged condition; and *cimarrona* or wild vanilla in good or fair condition, three pods counting as one of the first class.

4. The *rezacate*, composed of the very short pods; of those split clear up to the stalk; of the badly damaged; of the very immature; and of the very much over cured, which resembles a piece of wood; of this fourth class, six pods counted as one of the first class. The quantity of this and of the second class, was always very limited.

At the present day, the only distinction made is between the best class and the cimarrona and rezacate, the last two being sold at a very much lower price than the former. Both buying and selling are carried out by count.

Santonolactone has been recommended as a substitute name for santonin, in order to prevent its being confounded with strychnine.

—: OUR:—

## Latest Importations.

ALUM, in bbls.  
ALUM POWDERED, in bbls.  
FINEST EPSOM SALTS, in bbls.  
FINEST SUBLIMED SULPHUR, in bbls.  
ROLL SULPHUR, in bbls.  
CHLORIDE LIME, in casks.  
SALTPETRE XTALS, in kegs.  
SALTPETRE POWDERED, in casks.  
POWDERED HELLEBORE, in bbls.  
GLYCERINE, in tins.  
WHITE CASTILE SOAP, bars.  
WHITE CASTILE SOAP, cakes.  
PARIS GREEN, in casks and drums.  
GIBSON'S CANDIES, full assortment.

Your Orders Solicited.

# Jas. A. Kennedy & Co.

IMPORTERS,

London, - Ontario.

## Holiday Goods for Druggists Only.



OUR 8 OZ. PACKAGE.

*We have given our Holiday Line special attention this season and we are now ready to fill orders.*

*The Line includes Cut and Decorated Bottles in Crystal, Venetian and Japanese Ware, attractively put up in*

**FANCY PAPER BOXES,  
SATIN-LINED BOXES,  
HAND PAINTED BOXES.**

*The Largest and Handsomest Assortment ever shown in Canada.*

**PLEASE RESERVE YOUR ORDER.**

*It being our desire to have the Leading Druggists throughout the Dominion handle our goods, should our representative not call on you regularly, please notify us that we may arrange to do so.*

*Mail business solicited and given the best of attention.*

**Seely Manufacturing Co.,**

DETROIT, MICH.

THE AMERICAN PERFUMERS.

WINDSOR, ONT.

OPTICAL SPECIALTIES,

THE MONTREAL OPTICAL & JEWELLERY COMPANY, LIMITED.

Dealers in - -

DRUGGISTS' SUNDRIES,  
FANCY GOODS,  
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FANCY STATIONERY,  
OPTICAL GOODS,  
CHEMICAL APPARATUS, &c.,



Are reminded that it is unnecessary to use half a dozen mediums to reach the trade.

# The Canadian Druggist

Reaches the Drug Trade in all Provinces of the Dominion—guaranteeing a circulation unattained by any other.

REFERENCES:—OUR ADVERTISERS.

## Canadian Druggist Prices Current:

CORRECTED TO OCTOBER 10th, 1893.

The quotations given represent average prices for quantities usually purchased by Retail Dealers. Larger parcels may be obtained at lower figures, but quantities smaller than those named will command an advance.

ALCOHOL, gal.....	\$4 05	\$4 25	CASTOR, Fibre, lb.....	16 00	17 00	Bleached, lb.....	45	50
Methyl, gal.....	1 90	2 00	CHALK, French, powdered, lb..	10	12	Spruce, true, lb.....	30	35
ALLSPICE, lb.....	13	15	Precip., see Calcium, lb.....	10	12	Tragacanth, flake, 1st, lb.....	1 00	1 10
Powdered, lb.....	15	17	Prepared, lb.....	5	6	Powdered, lb.....	1 10	1 15
ALON, oz.....	40	45	CHARCOAL, Animal, powd., lb...	4	5	Sorts, lb.....	40	75
ANODYNE, Hoffman's bot., lbs...	50	55	Willow, powdered, lb.....	20	25	Thus, lb.....	8	10
ARROWROOT, Bermuda, lb.....	45	50	CLOVE, lb.....	25	30	HENN, Althca, lb.....	27	30
St. Vincent, lb.....	15	18	Powdered, lb.....	30	35	Bitterwort, lb.....	27	30
BALSAM, Fir, lb.....	45	50	COCHINEAL, Honduras, lb.....	40	45	Burdock, lb.....	16	18
Copaiba, lb.....	65	75	COLLOIDION, lb.....	75	80	Boneset, ozs, lb.....	15	17
Pern, lb.....	2 50	2 75	Cantharidal, lb.....	2 50	2 75	Catnip, ozs, lb.....	17	20
Tolu, can or less, lb.....	75	80	CONFECTION, Senna, lb.....	25	30	Chiretta, lb.....	25	30
BARK, Barberry, lb.....	22	25	Crossote, Wood, lb.....	2 00	2 50	Coltsfoot, lb.....	20	38
Bayberry, lb.....	15	18	CUTTLEFISH BONE, lb.....	35	40	Feverfew, ozs, lb.....	53	55
Buckthorn, lb.....	15	17	DENTRINE, lb.....	10	12	Grindelia robusta, lb.....	45	50
Canella, lb.....	15	17	DOVE'S POWDER, lb.....	1 50	1 60	Hoarhound, ozs, lb.....	17	20
Cascara Sagrada.....	25	30	ERGOT, Spanish, lb.....	1 00	1 10	Jaborandi, lb.....	45	50
Cascarilla, select, lb.....	18	20	Powdered, lb.....	1 15	1 30	Lemon Balm, lb.....	38	40
Cassia, in mats, lb.....	18	20	ERGOTIN, Keith's, oz.....	2 00	2 10	Liverwort, German, lb.....	38	40
Cinchona, red, lb.....	60	65	EXTRACT, Logwood, bulk, lb....	13	14	Lobelia, ozs, lb.....	15	20
Powdered, lb.....	65	70	Pounds, lb.....	14	17	Motherwort, ozs, lb.....	20	22
Yellow, lb.....	35	40	FLOWERS, Arnica, lb.....	15	20	Mullein, German, lb.....	17	20
Pale, lb.....	40	45	Calendula, lb.....	55	60	Pennyroyal, ozs, lb.....	18	20
Elm, selected, lb.....	16	18	Chamomile, Roman, lb.....	30	35	Peppermint, ozs, lb.....	21	25
Ground, lb.....	17	20	German, lb.....	40	45	Rue, ozs, lb.....	30	35
Powdered, lb.....	20	28	Elder, lb.....	25	22	Sage, ozs, lb.....	18	20
Hemlock, crushed, lb.....	18	20	Lavender, lb.....	12	15	Sparmint, lb.....	21	25
Oak, white, crushed, lb.....	15	17	Rose, red, French, lb.....	1 60	2 00	Thyme, ozs, lb.....	18	20
Orange peel, bitter, lb.....	15	16	Rosemary, lb.....	25	30	Tansy, ozs, lb.....	15	18
Prickly ash, lb.....	35	40	Saffron, American, lb.....	75	80	Wormwood, oz.....	20	22
Sassafras, lb.....	15	16	Spanish, Val'a, oz.....	1 00	1 25	Yerba Santa, lb.....	38	44
Soap (quillaya), lb.....	13	15	GELATINE, Cooper's lb.....	1 20	1 25	HONEY, lb.....	13	15
Wild cherry, lb.....	13	15	FRENCH, white, lb.....	40	50	HORS, fresh, lb.....	20	25
BEANS, Calabar, lb.....	45	50	GLYCERINE, lb.....	16 1/2	18	INDIGO, Madras, lb.....	75	80
Tonka, lb.....	1 50	2 75	GUARANA.....	3 00	3 25	INSECT POWDER, lb.....	25	28
Vanilla, lb.....	7 00	8 00	Powdered, lb.....	3 25	3 50	ISINGLASS, Brazil, lb.....	2 00	2 10
BERRIES, Cubeb, sifted, lb.....	75	80	GUM ALOES, Cape, lb.....	18	20	Russian, true, lb.....	6 00	6 50
powdered, lb.....	85	90	Barbadoes, lb.....	30	50	LEAF, Aconite, lb.....	25	30
Juniper, lb.....	10	12	Socotrine, lb.....	65	70	Bay, lb.....	18	20
Ground, lb.....	12	14	Assafoetida, lb.....	25	28	Belladonna, lb.....	25	30
Prickly ash, lb.....	40	45	Arabic, 1st, lb.....	65	70	Buchu, long, lb.....	50	55
BDS, Balm of Gilead, lb.....	55	60	Powdered, lb.....	75	85	Short, lb.....	22	25
Cassia, lb.....	25	30	Sifted sorts, lb.....	40	45	Coca, lb.....	55	60
BUTTER, Cacao, lb.....	75	80	Sorts, lb.....	25	30	Digitalis, lb.....	25	30
CAMPHOR, lb.....	65	70	Benzoin, lb.....	50	1 00	Eucalyptus, lb.....	18	20
CANTHARIDES, Russian, lb.....	2 00	2 10	Catechu, Black, lb.....	9	20	Hyoscyamus.....	25	30
Powdered, lb.....	2 10	2 20	Gamboge, powdered, lb.....	1 30	1 35	Matico, lb.....	70	75
CARSIUM, lb.....	25	30	Guaiaac, lb.....	75	1 00	Senna, Alexandria, lb.....	25	30
Powdered, lb.....	30	35	Powdered, lb.....	95	1 20	Tinnevely, lb.....	15	25
CARDON, Bisulphide, lb.....	16	18	Kino, true, lb.....	45	48	Stramonium, lb.....	20	25
CARMINE, No. 40, oz.....	40	50	Myrrh, lb.....	45	48	Uva Ursi, lb.....	15	18
			Powdered, lb.....	55	60	LEECHES, Swedish, doz.....	1 00	1 10
			Opium, lb.....	4 50	4 75	LICORICE, Solazzi.....	45	50
			Powdered, lb.....	6 50	6 75	Pignatelli.....	35	40
			Scammony, pure Resin, lb....	12 80	13 00	Grasso.....	30	35
			Shellac, lb.....	40	45	Y & S—Sticks, 6 to 1 lb., per lb	27	30

# BRAMWELL'S

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## Extra Purified

# EPSOM SALTS

Specially Prepared for Druggists.

FREE FROM MOISTURE.

FREE FROM DIRT.

**The Finest Quality Made.**

SAMPLES ON APPLICATION.

ARTHUR P. TIPPET & CO., Agents for Canada, Toronto.

### DRUG REPORTS.

#### Ontario.

Business shows signs of improvement.

Opium has advanced fully 10 per cent. during the past month. The future of this article is mere speculation. Morphine, of course, sympathises with it and is quoted higher.

Solol, demand large, stocks in the city about exhausted.

Coca Leaves and Cocaine are lower.

Spices generally are higher for first-class goods.

Oils of Bergamot, Cassia, Eucalyptus and Winter Green, are easier.

Gum Arabics, easier.

Gum Shellac, higher.

#### England.

London, Sept. 26th, 1893.

The month has been rather a dull one for business although there are signs of improvement. This is particularly noticeable in drugs, the chemical market generally being flat.

Quinine has hardened during the last week and with a fair demand prices were higher.

Cascara and Jalap are also dearer owing to scarcity of supplies on this side.

Adverse reports have been confirmed as to the Otto de Rose crop this year and a considerable increase in value of all grades has taken place.

From the same cause the English Essential Oils of Lavender and Peppermint are much dearer.

Balsam of Peru is easier.

Ergot, a shade lower.

Jaborandi Leaves are very scarce and dear.

Pilocarpine is quoted at a considerable advance.

Demand for Sulphate of Copper has slightly enhanced values, but the increase is not regarded as permanent.

The coal strike which still continues has affected Caustic Potash, only a small amount being now produced.

Oxalic Acid is very firm and the price advancing, as no stock exists.

Bleaching Powder is in the same category with Caustic Soda and from the same cause.

#### Syrup of Iodide of Iron.

M. Roussillon prepares this syrup from a solution which he claims to be unalterable when kept. Iodine, 16.40 Gm., iron filings, 8 Gm., and distilled water, 30 Gm., are heated together until the reaction is complete, and the solution filtered whilst hot into a vessel containing pure glycerin, 220 Gm. 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 Grammes. The solution is immediately poured into well dried vials, containing when filled 18, 36, and 72 Grammes 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  $\frac{1}{4}$ ,  $\frac{1}{2}$ , or 1 Litre of syrup of iodide of iron, according to size, and both the solution and syrup thus prepared are said to keep without change.—*Journ. de Pharm.*

#### Oleo-Creasote.

This ester of oleic acid and creasote is a yellow, oily liquid, having a faint odor of creasote but free from the caustic taste of creasote; it is insoluble in water, alcohol and glycerine, but easily soluble in absolute alcohol and ether. Being a neutral body, daily doses of 10-15 grains can be administered without interfering with the functions of the stomach. It can be

made by allowing 74.4 gm. pure creasote and 109.2 gm. pure oleic acid to stand for several hours before heating in an oil-bath to 135° C. for 1½ hours; the product is then repeatedly washed with distilled water, next with a dilute soda solution and lastly again with distilled water; to remove the last traces of water it is agitated with anhydrous sodium sulphate. The yield is rather unsatisfactory, as only about fifty per cent. of the theoretical quantity is obtained. C. Levy, *Journ. der Pharm. v. Els.-Lothr.—Amer. J. Pharm.*

#### Mixtures That Explode.

Beri and Cari Mantroud in a note presented to the Paris Chemical Society state that by mixing barium hypophosphite and potassium chlorate, dried and pulverized separately, an exceedingly combustible substance is obtained. Ignited in the open air a dull explosion takes place, but the slightest obstacle to the free escape of the gases renders the explosion terrifically violent, analogous to that of fulminate of mercury. This powder is exploded by any gentle shock, the striking of the pestle against the side of the mortar, for instance. A mixture of syrupy sodium hypophosphite with sodium chlorate in powder, forms an explosive as violent as nitroglycerin. Heated on a leaf of platinum this mixture first liquifies, then dries, and suddenly explodes, blowing a hole through the platinum foil.

TONQUINOL is a new compound offered as a substitute for musk, and is said by the patentees (Germany) to be a derivative of a nitrated terpene and a nitrated sulpho-acid of xyol. Tonquinol is in the form of a white crystalline powder, which, after solution in fifty parts of alcohol, may be mixed with water in all proportions. It is claimed to be very permanent and cheaper than Baur's artificial musk.

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Y & S—Purity, 100 sticks in box	75	75	Unicorn, lb.	38	40	BISMUTH, Ammonia-citrate, oz.	40	45	
“ Purity, 200 sticks in box	1 50	1 50	Valerian, English, lb. true.	20	25	Salicylate, oz.	30	35	
“ Aemo Pellets, 5 lb. tins	2 00	2 00	Virginia Snake, lb.	40	45	Subcarbonate, lb.	2 75	3 00	
“ Lozenges, 5 lb. tins	1 50	1 75	Yellow Dock, lb.	15	18	Subnitrate, lb.	2 40	2 60	
“ Tar, Licorice & Tolu, 5 lb. tins	2 00	2 00	RUM, Bay, gal.	2 25	2 50	BORAX, lb.	9	10	
LUPULIN, oz.	30	35	Essence, lb.	3 00	3 25	Powdered, lb.	10	11	
LYCOPONIUM, lb.	70	80	SACCHARIN, oz.	1 25	1 50	BROMINE, oz.	8	13	
MADE, lb.	1 20	1 25	SEMI, Anise, Italian, sifted, lb.	13	15	CADMIUM, Bromide, oz.	20	25	
MANNA, lb.	1 60	1 75	Star, lb.	35	40	Iodide, oz.	45	50	
Moss, Iceland, lb.	9	10	Burdock, lb.	30	35	CALCIUM, Hypophosphite, lb.	1 50	1 60	
Irish, lb.	9	10	Canary, bag or less, lb.	6	7	Iodide, oz.	95	1 00	
MUSK, Tonquin, oz.	46 00	50 00	Caraway, lb.	10	13	Phosphate, precip., lb.	35	38	
NUTGALLS, lb.	21	25	Cardamom, lb.	1 25	1 50	Sulphide, oz.	5	6	
Powdered, lb.	25	30	Celery	30	35	CERIUM, Oxalate, oz.	10	12	
NUTMEGS, lb.	1 00	1 10	Colchicum	75	80	CHINIDINE, oz.	15	18	
NUX VOMICA, lb.	10	12	Coriander, lb.	10	12	CHLORAL, Hydrate, lb.	1 00	1 10	
Powdered, lb.	25	27	Cumin, lb.	15	20	Croton, oz.	75	80	
OAKUM, lb.	12	15	Fennel, lb.	15	17	CHLOROFORM, lb.	65	2 00	
OINTMENT, Merc., lb. $\frac{1}{2}$ and $\frac{1}{4}$	70	75	Fenugreek, powdered, lb.	7	9	CHINONINE, sulphate, oz.	25	30	
Citrine, lb.	45	50	Flax, green, lb.	3 $\frac{1}{2}$	4	CHINONINE, Sulph., oz.	15	20	
PARALDEHYDE, oz.	15	18	Ground, lb.	4	5	COCAINE, Mur., oz.	8 50	9 00	
PEPPER, black, lb.	22	25	Hemp, lb.	6	6 $\frac{1}{2}$	COPPER, Sulph. (Blue Vitrol) lb.	7	8	
Powdered, lb.	25	30	Mustard, white, lb.	11	12	Iodide, oz.	65	70	
PITCH, black, lb.	3	4	Powdered, lb.	15	20	COPPERAS, lb.	1	3	
Bergundy, true, lb.	10	12	Pumpkin	25	30	ETHER, Acetic, lb.	75	80	
PLASTER, Calcined, bbl. cash.	2 25	3 25	Quince, lb.	65	70	Sulphuric, lb.	40	50	
Adhesive, yd.	12	13	Rape, lb.	8	9	EXALGINE, oz.	1 00	1 10	
Belladonna, lb.	65	70	Strophanthus, oz.	50	55	HYOSCYAMINE, Sulp., crystals, gr.	25	30	
Galbanum Comp., lb.	80	85	Worm, lb.	22	25	IODINE, lb.	5 00	5 50	
Lead, lb.	25	30	SEIDLITZ MIXTURE, lb.	25	30	IODOPORUM, lb.	6 00	7 00	
POPPY HEADS, per 100	1 00	1 10	SOAT, Castile, Mottled, pure, lb.	10	12	IODOL, oz.	1 30	1 40	
ROSIN, Common, lb.	2 $\frac{1}{2}$	3	White, Conti's, lb.	15	16	IRON, by Hydrogen	1 00	1 10	
White, lb.	3 $\frac{1}{2}$	4	Powdered, lb.	25	35	Carbonate, Precip., lb.	15	16	
RESORCIN, White, oz.	25	30	Green (Sapo Viridis), lb.	12	25	Sacch., lb.	35	40	
RÔCHELLE SALT, lb.	25	28	SPERMACTI, lb.	50	55	Chloride, lb.	45	55	
ROOT, Aconite, lb.	22	25	TURPENTINE, Chian, oz.	75	80	Sol., lb.	13	16	
Althea, cut, lb.	30	35	Venice, lb.	10	12	Citrate, U. S. P., lb.	90	1 00	
Belladonna, lb.	25	30	WAX, White, lb.	50	75	And Ammon., lb.	75	80	
Blood, lb.	15	16	Yellow	40	45	And Quinine, lb.	1 50	3 00	
Bitter, lb.	27	30	WOOD, Guaiac, rasped	5	6	Quin. and Stry., oz.	18	30	
Blackberry, lb.	15	18	Quassia chips, lb.	10	12	And Strychnine, oz.	13	15	
Burdock, crushed, lb.	18	20	Red Saunders, ground, lb.	5	6	Dialyzed, Solution, lb.	50	55	
Calamus, sliced, white, lb.	20	25	Santal, ground, lb.	5	6	Ferrocyanide, lb.	55	60	
Canada Snake, lb.	30	35	<b>CHEMICALS.</b>				Hypophosphites, oz.	20	25
Cohosh, Black, lb.	15	20	ACID, Acetic, lb.	12	13	Iodide, oz.	40	45	
Colchicum, lb.	40	45	Glacial, lb.	45	50	Syrup, lb.	40	45	
Colombo, lb.	20	22	Benzoic, English, oz.	20	25	Lactate, oz.	5	6	
Powdered, lb.	25	30	German, oz.	10	12	Pernitrate, solution, lb.	15	16	
Coltsfoot, lb.	38	40	Boracic, lb.	20	25	Phosphate scales, lb.	1 25	1 30	
Comfrey, crushed, lb.	20	25	Carbolic Crystals, lb.	30	38	Sulphate, pure, lb.	7	9	
Curcuma, powdered, lb.	13	14	Calvert's No. 1, lb.	2 10	2 15	Exsiccated, lb.	8	10	
Dandelion, lb.	15	18	No. 2, lb.	1 35	1 40	And Potass. Tartrate, lb.	80	85	
Elecampane, lb.	15	10	Citric, lb.	65	70	And Ammon. Tartrate, lb.	85	90	
Galangal, lb.	15	18	Gallic, oz.	10	12	LEAD, Acetate, white, lb.	13	15	
Gelsenium, lb.	22	25	Hydrobromic, diluted, lb.	30	35	Carbonate, lb.	7	8	
Genitan, lb.	9	10	Hydrocyanic, diluted, oz. bot-	1 50	1 60	Iodide, oz.	35	40	
Ground, lb.	10	12	les doz	1 50	1 60	Red, lb.	7	9	
Powdered, lb.	13	15	Lactic, concentrated, oz.	22	25	LIME, Chlorinated, bulk, lb.	4	5	
Ginger, African, lb.	18	20	Muriatic, lb.	3	5	In packages, lb.	6	7	
Po., lb.	20	22	Chem. pure, lb.	18	20	LITHIUM, Bromide, oz.	40	45	
Jamaica, bichd., lb.	27	30	Nitric, lb.	10 $\frac{1}{2}$	13	Carbonate, oz.	30	35	
Po., lb.	30	35	Chem. pure, lb.	25	30	Citrate, oz.	25	30	
Ginseng, lb.	3 00	3 25	Oleic, purified, lb.	75	80	Iodide, oz.	50	55	
Golden Seal, lb.	75	80	Oxalic, lb.	12	13	Salicylate, oz.	35	40	
Gold Thread, lb.	90	95	Phosphoric, glacial, lb.	1 00	1 10	MAGNESIUM, Calc., lb.	55	60	
Hellebore, White, powd., lb.	12	15	Dilute, lb.	13	17	Carbonate, lb.	18	20	
Indian Hemp.	18	30	Pyrogallie, oz.	35	38	Citrate, gran., lb.	40	45	
Ipecac, lb.	2 65	2 75	Salicylic, white, lb.	1 80	2 00	Sulph. (Epsom salt), lb.	1 $\frac{1}{2}$	3	
Powdered, lb.	2 80	3 00	Sulphuric, carbony, lb.	21	23	MANGANESE, Black Oxide, lb.	5	7	
Jalap, lb.	55	60	Bottles, lb.	5	6	MENTHOL, oz.	30	35	
Powdered, lb.	60	65	Chem. pure, lb.	18	20	MERCURY, lb.	90	95	
Kava Kava, lb.	40	90	Tannic, lb.	90	1 10	Ammon (White Precip.),	1 25	1 30	
Licorice, lb.	12	15	Tartaric, powdered, lb.	40	45	Chloride, Corrosive, lb.	1 00	1 10	
Powdered, lb.	13	15	ACETANILID, lb.	90	1 00	Calomel, lb.	1 15	1 20	
Mandrake, lb.	13	18	ACONITINE, grain.	4	5	With Chalk, lb.	60	65	
Masterwort, lb.	16	40	ALUM, cryst., lb.	1 $\frac{1}{2}$	3	Iodide, Proto, oz.	35	40	
Orris, Florentine, lb.	30	35	Powdered, lb.	3	4	Iin., oz.	25	30	
Powdered, lb.	40	45	AMMONIA, Liqueur, lb. 880	8 $\frac{1}{2}$	10	Oxide, Red, lb.	1 30	1 35	
Pareira Brava, true, lb.	40	45	AMMONIUM, Bromide, lb.	65	75	Pill (Blue Mass), lb.	70	75	
Pink, lb.	75	80	Carbonate, lb.	12	13	MILK SUGAR, powdered, lb.	50	55	
Parsley, lb.	30	35	Iodide, oz.	35	40	MORPHINE, Acetate, oz.	2 00	2 10	
Plourisy, lb.	20	25	Nitrate, crystals, lb.	40	45	Muriate, oz.	2 00	2 10	
Poko, lb.	15	18	Muriate, lb.	12	16	Sulphate, oz.	2 25	2 30	
Queen of the Meadow, lb.	18	20	Valerianate, oz.	55	60	PERSTN, Saccharated, oz.	35	40	
Rhatany, lb.	20	30	AMYL, Nitrite, oz.	16	18	PHENACETINE, oz.	45	50	
Rhubarb, lb.	75	2 50	ANTISEPTIC, oz.	85	00	PHLOGAIFINE, Muriate, grain.	5	6	
Sarsaparilla, Hond., lb.	40	45	ANTIPYRIN, oz.	1 00	1 10	PIPERIN, oz.	1 00	1 10	
Cut, lb.	50	55	ARISTOL, oz.	2 00	2 25	PHOSPHORUS, lb.	90	1 10	
Senega, lb.	55	65	ARSENIC, Donovan's sol., lb.	25	30	POTASSA, Caustic, white, lb.	55	60	
Squill, lb.	13	15	Fowler's, sol., lb.	13	15	POTASSIUM, Acetate, lb.	35	40	
Stillingia, lb.	22	25	Iodide, oz.	35	40	Bicarbonate, lb.	15	17	
Powdered, lb.	25	27	White, lb.	6	7	Bichromate, lb.	14	15	
			ATROPINE, Sulp., in $\frac{1}{2}$ oz., oz.	7 00	8 00	Bitrat (Cream Tart.), lb.	25	30	

Bromide, lb.....	45	50	TARTAR EMETIC, lb.....	50	55	Lemon, lb.....	2	75	3	00
Carbonate, lb.....	14	16	THYMOL, (Thymic acid), oz.....	55	60	Lemongrass, lb.....	1	50	1	60
Chlorate, Eng., lb.....	23	30	VELATRINE, oz.....	2	00	2	10	60	65	
Powdered, lb.....	30	33	Zinc, Acetate, lb.....	70	75	Mustard, Essential, oz.....		60	65	
Citrate, lb.....	75	90	Carbonate, lb.....	25	30	Neroli, oz.....	4	25	4	50
Cyanide, fus., lb.....	40	55	Chloride, granular, oz.....	13	15	Orange, lb.....	3	75	5	00
Hypophosphites, oz.....	10	12	Iodide, oz.....	60	65	Sweet, lb.....	3	25	3	60
Iodide, lb.....	4	00	Oxide, lb.....	13	60	Origanum, lb.....		65	70	
Nitrate, gran., lb.....	8	10	Sulphate, lb.....	9	11	Patchouli, oz.....	1	75	1	80
Permanganate, lb.....	50	55	Valerianate, oz.....	25	30	Pennyroyal, lb.....	3	00	3	25
Prussiate, Red, lb.....	50	55	<b>ESSENTIAL OILS.</b>			Peppermint, lb.....	4	25	4	50
Yellow, lb.....	32	35	Oil, Almond, bitter, oz.....	75	80	Pimento, lb.....	2	60	2	75
And Sod. Tartrate, lb.....	30	35	Sweet, lb.....	50	60	Rhodium, oz.....		80	85	
Sulphuret, lb.....	25	30	Amber, crude, lb.....	40	45	Rose, oz.....	7	50	8	00
PROPYLAMINE, oz.....	35	40	Rec't, lb.....	65	70	Rosemary, lb.....		70	75	
QUININE, Sulph., bulk.....	25	28	Anise, lb.....	2	75	Rue, oz.....	25	30	30	
Ozs., oz.....	32	38	Bay, lb.....	50	60	Sandalwood, lb.....	5	50	9	00
QUININE, Sulphate, ozs., oz.....	16	20	Bergamot, lb.....	4	00	Sassafras, lb.....		75	80	
SALICIN, lb.....	3	75	Cade, lb.....	90	1	Savin, lb.....	1	60	1	75
SANTONIN, oz.....	20	22	Cajuput, lb.....	1	80	Spear-mint, lb.....	6	00	6	25
SILVER, Nitrate, cryst., oz.....	90	1	oz.....	60	65	Spruce, lb.....		65	70	
Fused, oz.....	1	00	Caraway, lb.....	3	50	Tansy, lb.....	4	25	4	50
SODIUM, Acetate, lb.....	30	35	Cassia, lb.....	1	40	Thyme, white, lb.....	1	80	1	00
Bicarbonate, kgs., lb.....	2	75	Cinnamon, Ceylon, oz.....	1	50	Wintergreen, lb.....	3	00	3	50
Bromide, lb.....	03	65	Citronelle, lb.....	70	75	Wormseed, lb.....	3	50	3	75
Carbonate, lb.....	3	6	Clove, lb.....	1	60	Wormwood, lb.....	6	50	6	75
Hypophosphite, oz.....	10	12	Copaiba, lb.....	1	60	<b>FIXED OILS.</b>				
Hyposulphite, lb.....	3	6	Croton, lb.....	1	50	Castor, lb.....		9	11	
Iodide, oz.....	40	45	Cubeb, lb.....	9	50	Cod Liver, N. F., gal.....	1	00	1	25
Salicylate, lb.....	1	50	Cumin, lb.....	5	50	Norwegian, gal.....	1	25	1	50
Sulphate, lb.....	2	3	Erigeron, oz.....	20	25	COTTONSEED, gal.....	1	10	1	20
Sulphite, lb.....	10	12	Eucalyptus, lb.....	1	50	LARD, gal.....		90	1	00
SOMNOL, oz.....	85	00	Fennel, lb.....	1	60	LINSEED, boiled, gal.....		65	67	
SPRIT NITRI, lb.....	30	60	Geranium, oz.....	1	75	Raw, gal.....		63	65	
STRONTIUM, Nitrate, lb.....	18	20	Rose, lb.....	3	20	NEARSFOOT, gal.....	1	00	1	10
STRYCHNINE, crystals, oz.....	1	00	Juniper berries (English), lb.....	4	50	OLIVE, gal.....	1	30	1	35
SULFONAL, oz.....	32	34	Wood, lb.....	70	75	Salad, gal.....	2	25	2	40
SULPHUR, Flowers of, lb.....	21	4	Lavender, Chiris. Fleur, lb.....	3	00	PALM, lb.....		12	13	
Pure precipitated, lb.....	13	20	Garden, lb.....	1	50	SPERM, gal.....	1	75	1	80
						TURPENTINE, gal.....		65	68	

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